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Country Roads of Concrete--Inexpensive in First Cost and Maintenance

No single factor plays such an important part in the social and business life of a community as the quality of its roads. Aside from the pleasure and convenience of travel, possible at all times over permanent roads, there is the financial phase which directly concerns the cost not only of farm produce but of city products as well. Consequently everybody wants good roads. In the matter of paying for permanent highways, a generally satisfactory agreement seems to have been reached in the proposed distribution of the cost between the nation, the state, the county and the users of the road in question. As a result, within a few years this country will take its rightful leading position among the nations of the world in the number of miles of permanent roads.

Changed Conditions Require Permanent Material.

In a way it is fortunate that the United States has been rather slow in the matter of road-making. The roads can now be built of lasting materials such as will withstand the wear of motor traffic which is fast ruining Europe's century-old roadways. Lasting road materials are everywhere present in the form of sand and gravel from pits and stream beds and crushed rock from stone quarries. Combined with Portland cement into concrete, they form an inexpensive and permanent road surface which successfully resists the usually destructive action of automobiles.

Inexpensive Local Materials Often Usable.

The first consideration in the building of concrete roads is a careful study of local deposits of sand, gravel and rock (called the aggregate) to see whether they are suitable for concrete. Sand must be clean and hard and must grade uniformly in size of grain from 1/4-inch down. The same applies to gravel and crushed rock except that the largest particles commonly allowable are 1 1/4 inches in diameter. If local materials are usable, a considerable saving will be effected, as only cement will need be freighted. A brand of Portland cement should be chosen which is guaranteed to meet the specifications of the United States Government or those of the American Society of Testing Materials.

Mixing the Concrete and Building the Road.

It is much faster and cheaper to mix the concrete with a machine than by hand. Depending on the grading

of the aggregate, the concrete is usually proportioned 1 bag of Portland cement to 2 cubic feet of sand and 4 cubic of screened gravel or crushed rock, or 1 of cement to 2 of sand and 3 of gravel or rock. During the grad-

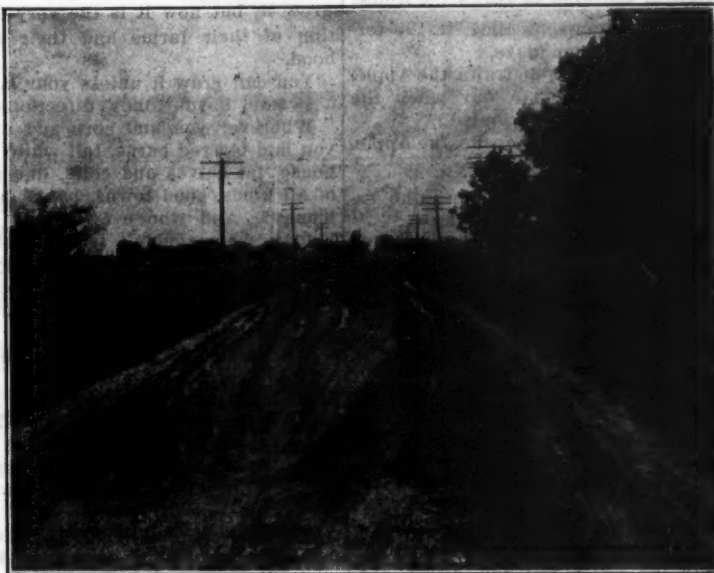
ing and shape by means of a templet. In order to shed the water to the side drains the surface of the concrete is given a rise or crown in the center of one one-hundredth to one seventy-fifth the wide of the roadway. The

wise the road and entirely through the concrete. These joints are formed by means of a thin metal or wooden cross-form or divider to which is tied a single or double thickness of tar paper with the paper face against the last laid section of roadway. After the surface of this section is finished, and while the concrete for the adjoining section is being placed, the cord holding the paper to the cross-form is cut and the cross-form is removed. The tar paper adheres to the concrete and stays in the joint, which is reduced to the thickness of the paper by forcing against it the freshly placed concrete of the section under construction.

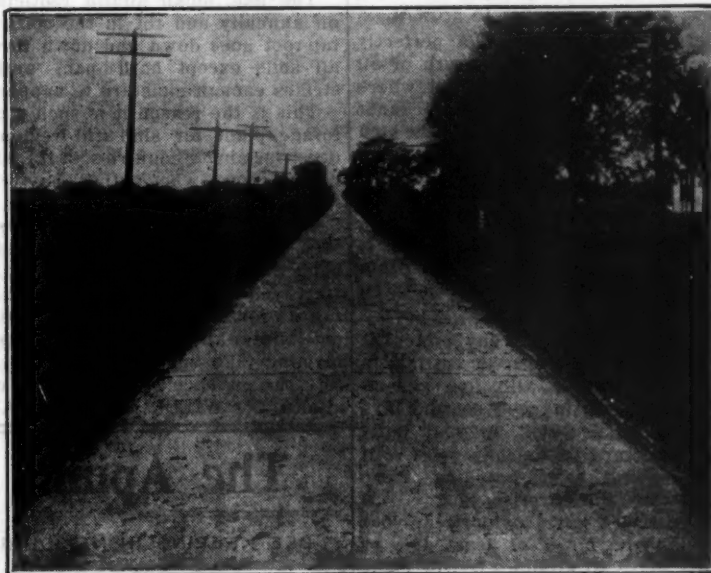
When the surface of the concrete has hardened enough to prevent pitting it is sprinkled with clean water and is kept moist for several days. Likewise, as soon as possible, the pavement is covered temporarily with 2 inches of sand or dirt from the side-road to give further aid in curing the concrete. Traffic is confined to the earthen side-roads until the concrete is about two weeks old. In the meantime shoulders of broken stone or gravel are built along both edges of the pavement. These are made 3 feet wide and sufficiently thick to be firm and to make it an easy matter at all times for wagon wheels to pass from the side-road onto the pavement.

The First Cost and the Real Cost of Roadways.

There are two phases of the cost of any improvement—first cost and up-keep expense. In both items the concrete road has proven less expensive than any other kind of permanent roadway. Of some three million yards of city and country concrete pavements built in recent years, the average first cost has been \$1.22 per square yard. The annual up-keep expense per mile on these roads has been almost nothing. In Bellefontaine, Ohio, concrete pavements in use 18 years have cost annually for maintenance only 1/4 of one cent per square yard. Up-keep cost of Wayne County, Michigan, country concrete roads for three years has averaged but \$2.50 per mile. In 1911 the mean cost of repairing macadam roads in New York state was \$800.00 per mile—10 per cent of the first cost. If these roads had been concrete, practically all this immense expense could have been saved and used in building new roads instead of repairing old ones. With better roads will come better schools, better churches, happier homes, better business and decreased cost of living.



Dirt Roads and Worn-out Macadam—Often Impassable.



Repair-proof Road of Concrete—Always Usable.

ing and draining of the road, the aggregate is hauled and piled at convenient points. The concrete is mixed mushy wet, is deposited to the thickness of 6 inches upon the firm old road-bed and is brought to grade

surface is finished with a wooden float and wire broom, by which means there is afforded perfect footing for horses. At intervals of 25 feet the road is divided into sections by narrow contraction joints extending cross-

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With every order for plants of this great berry, (if you enclose M. O. or Silver) we will send FREE FOR TRIAL a sample of our NEW PEANUT. It is a new variety, and is the best yet. It will grow in any soil, and will give you a crop of peanuts in 4 months. Order Quick For This Offer Will Not Appear Again.

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We grow it, and only offer what is grown on our own farm, from the very best seed. No one has better seed, and no one can afford to sell good seed cheaper. Prices: Crated ears, \$3.00 per bushel, select shelled, \$2.50 per bushel. A few bushels of Boone County White, same prices. Better order early.

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Strictly pure bred, grown on our own farms from extra choice seed. Quality, good as the best. We won 1st in Capper Corn contest for best single ear in state and 1st for best 20 ears at Missouri State Corn Show, 1912. Guaranteed to please you. Send for samples and prices.

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a quarterly magazine, devoted to special crops and intensive farming, with special attention to the care and handling of poultry. Tells how to make \$200 per acre per year on any farm from 5 to 100 acres. Every grape grower needs poultry. Good Poultry alone, 10 cents a copy; 25 cents a year. Free with \$1.00 order for grape vines. Agents wanted, write today.

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ABOUT TREES.

Editor RURAL WORLD: Walnut trees will repel flies. They are the best trees to plant in lots for shade for both man and beast. The shade of walnut trees is more disliked by flies than that of any other tree.

Sandy soil is best for most all kinds of fruit trees. Sandy soil is worth \$100 more per acre than some other soils, especially for peaches.

Plant apple trees 30 to 32 feet apart each way. Then in the rows north and south between the standard trees, plant peach trees, or young bearing apple trees to be cut out when their space is needed by the growth of the standard trees. I also have planted in the rows between the apple trees, blackberries, raspberries and strawberries, and the strawberries produced a good crop the second year after planting, or 14 months after planting, the raspberries 25 months after planting and blackberries 26 months after planting. I also planted the middle space between the trees with cowpeas, with good results. The trees where the berries grew made as big a growth as where no berries grew. The berries the first two years were but little injured by the trees.

Look out for the fruit agents who are selling peach trees that they represent will endure 27 degrees below zero. If this were true every nursery man would have them before the fruit agents.

JACOB FAITH.

Horticulture

THE KING OF FRUIT—THE APPLE.

(Written for the RURAL WORLD by Jessie Anderson Stockton, Denver, Colo.) Tune: Rally Round the Flag.

We have come to praise Pomona for what we prize the most,
Hail to the king of fruits, the Apple.
And to join the mighty chorus that swells from coast to coast,
Hail to the king of fruits, the Apple.

Chorus:

Give thanks to Pomona, rejoice,
friends, rejoice;
Give thanks for the Apple, or all 'tis
our choice,
And to make its flower our emblem,
we'll work with pen and voice,
Hail to the king of fruits, the Apple.

Oh, the tree's a thing of beauty, the
bloom a charming sight.
Hail to the king of fruits, the Apple.
And the globes of garnered sunshine
a picturesque delight,
Hail to the king of fruits, the Apple.

When the harvesting is o'er, and the
bins are filled with care,
Hail to the king of fruits, the Apple.
What a splendor greets the eye, and
what fragrance fills the air,
Hail to the king of fruits, the Apple.

In the glad October's time, in the fer-
tile Autumn days,
Hail to the king of fruits, the Apple.
We have set apart a day when the
nation joins in praise,
Hail to the king of fruits, the Apple.

Encore:

Let us cheer the able man who es-
poused the Apple's cause,
Cheer him for laboring so grandly,
He has led a winning fight and de-
serves our warm applause,
Hail to our gallant Captain Handly.

SOW ALFALFA THIS YEAR.

Editor RURAL WORLD: Alfalfa has made thousands upon thousands of acres in Kansas so rich they are practically inexhaustible. Every farm on which it has been grown has increased in value from 50 to 100 per cent. Every farm with ten acres of alfalfa ten years ago now grows five to ten times the amount. Every farmer who grows it has better looking horses, cattle, hogs, sheep and poultry than the same stock on the farm of the man who refuses to grow it.

Corn and alfalfa make a perfectly balanced ration for the growth of all young stock. In the corn belt where wheat and other small grains cannot be grown successfully, where the land is really beginning to show that it has been abused by cropping with corn for so many years, alfalfa has been introduced by inoculating the seed, and after a few years in the soil, it has brought the land back to a state of fertility that can easily be seen when gathering the crop.

Why sow seed for a hay crop that will give you one or two cuttings a year when alfalfa will give you at least three and in good seasons five heavy cuttings. Pick up your daily paper and turn to the hay prices. If you have not been watching these figures they will surprise you.

No matter how high-priced your land is, sow down at least ten or twenty acres to alfalfa. It will make you the biggest return of any grain or hay ground on the farm.

Talk about a gold mine, silver mine, copper, zinc or lead mine where years of hard work and thousands of dollars are spent prospecting and big chances taken—here is a gold mine right on your own farm that pays big dividends the first year of its growth, and gives a product that is worth more per ton than the ore produced from the average mine, to say nothing

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of the cash value it puts into your soil for the crops that follow!

What makes cattle feeding profitable in certain sections of Ohio, Illinois, Nebraska and Kansas? Alfalfa and corn.

What makes the sheep men of Wyoming unload and fat their sheep on lands in certain parts of Iowa, Missouri and South Dakota? Alfalfa and corn, of course. These farmers, too, thought at one time they could not grow it, but now it is the very salvation of their farms and their livelihood.

You can grow it unless your lane is a swamp, if you follow directions.

Wherever you find corn and alfalfa you find big red barns, tall white farm house, fat calves and colts, fine stock of all kinds, good towns, banks full of money! And who ever heard of a banker who wouldn't lend an alfalfa and corn farmer all the money he wanted? And what's a lot scarcer is an alfalfa and corn farmer who needs to borrow money!

Now, then, test your soil to see if it is sour. If it is, sweeten it with ground lime rock, or agricultural lime.

Inoculate your seed and you'll get finest "catch" of alfalfa you ever saw. Prepare the seed bed thoroughly, get it finely pulverized and the weeds all killed.

The value of your land will jump 50 to 100 per cent and you will begin to get a hay crop that is worth pound for pound as much as bran—a hay crop that is a perfect balancer for all the corn you want to feed.

The fine, small alfalfa rootlets die off annually and rot in the soil. The tap-root goes down and down through all soils except hard pan, until it strikes enough moisture to support it.

This is the reason it is such a great forage plant for semi-arid regions or dry farming countries. It yields heavy crops when other hay crops fail.

The right kind of high altitude seed, seed grown in Montana, seed from fields that have not been irrigated, will start you a field of alfalfa that will run its roots down deep and positively not winter-kill. The lean years of farming take wings and fly away before the advance of the wonder crop, alfalfa.

WILLIAM GALLOWAY.

The Apiary

BEE KEEPING IN MISSOURI.

According to the last census report, Missouri has 40,110 bee keepers in the state and no report from those living in towns and cities would greatly increase the number; perhaps to 45,000 anyway.

The number of colonies of bees are given as 203,569 and the honey gathered per year would probably be more than 6,000,000 pounds and valued at about \$800,000, so that bees and their products would be more than \$1,500,-

000, and as has been stated again and again that is the smallest part of the benefit of bee keeping as the best work on fruit bloom.

According to the report, there are about one in twenty farmers in the state that have bees; Missouri is ranked second in number of colonies but fourth in the amount of honey obtained, as some other have more apiarists that keep large apiaries connected with an experienced bee keeper are more apt to secure large crops of honey. Texas is ranked as first in bee keeping, but Texas is about four times as large as is Missouri, so that we think our state makes really the best showing in bee keeping; the large number keeping bees shows that our state is a good bee country and also shows that bee keeping is more divided between the people of the state than where there are only a few that have a large number of bees, so we are more diversified in our state; while Missouri made a good showing, yet it could be very greatly helped if the many thousands of persons keeping bees would have the bees in a more up-to-date and latest improved hives and fixtures and would give the bees better attention, as the largest proportion keeping bees in our state do not give the bees but very little or no attention at all, only to "rob" them if the bees have anything to "rob." If rightly handled often a good crop of honey could be secured.

We worked this winter to have an amendment to our foul brood law, but the very ones that should have helped the most, in some cases they voted against our bill; we mean the farmers, as the bees are not only a great help to fruit growing, but are also of much benefit to clover growing as well. Our bill in the Senate passed with only one dissenting vote, and the Senate was made up largely of lawyers, but when our bill came before the House it lacked two votes of carrying there, so was lost. We are aiming to have our law amended so we could have deputies to help in working foul brood; this would have secured the work at less cost than at present, besides the inspector cannot do all the much-needed work anyway alone, as there is more than any one man can do to do all that is needed to stamp out foul brood or to even keep it under control; bee keeping to understand it even in a limited way seems to take lots of education for some to understand about them or their value to the state at large.

I never knew better prospects for a good honey season than at present for this time of the season; bees mostly have wintered well with but few losses so far as I know, and prospects for a good bloom on all kinds of fruits and clovers are fine. We hope to secure a good crop of honey this time.

J. W. ROUSE.
Mexico, Mo.

The Poultry Yard

THE GUINEA FOWL.

By Michael K. Boyer.

The Guinea fowl hen is a good layer, but on account of the wild, gamy flavor the eggs have never had an extensive sale for table use. However, by turning the eggs into broilers or roasters, a considerable profit will be derived. The flesh is the nearest substitute we have for the wild game.

The Guinea is of a very roving disposition, and one of the best known destroyers of insects.

The laying season starts in early April and continues until October, the hen laying as many as 120 eggs in a season. In the early part of the season it is not advisable to let the Guinea hatch a brood, as she is of too restless a nature, and will not give her young the proper attention. But after the first of July, on account of the warm weather, she will be more quiet, and can be safely entrusted with a brood.

It requires four weeks to hatch out Guineas. The hen always hides her nest, and that, too, in some way place. As it comes off the nest it gives a shrill cry, and in that way the hiding place can be detected. All the hens of a flock are apt to lay in the same nest, and in taking away the eggs they should not be touched with the hands, for if the hen discovers that the nest has been touched she will desert it and hunt another place. But if the eggs are removed with a stick she will not leave the nest, even though the eggs are taken out nearly every day.

It is claimed that a cross of the Pearl and White Guineas will produce a carcass closely resembling that of the English Grouse. If rightly cooked the meat of even an old bird will be tender and delicious, while that of the young bird is unsurpassed as a broiler or frier. The dressed Guinea has a round, plump body, good sized breast, and small bone.

Guineas will pair if the sexes are equal. They generally lay between the hours of 10 o'clock in the morning and 2 o'clock in the afternoon. Until well feathered, young Guineas are delicate and tender. It is not advisable to hatch before June. The Guinea cock bird cares as much for the young as does the hen, guarding them during the day and hovering them at night.

The male bird is larger than the female, is more aggressive, and has a different call. The hen makes a noise sounding like: "Come back, come back," while the male gives "tick, tick." The cry of the Guinea is one of warning to the rest of the poultry, and they at once hide until the alarm ceases.

Guineas do not scratch like other fowls, and therefore are safe to have in the garden. They should be given their freedom, as they do not thrive in confinement.

THEORY VS. PRACTICE IN POULTRY CULTURE.

Speaking of hens, there are homes and farms, scattered all over the country, where experiment station bulletins never come and the "new agriculture" is yet unheard of, whose owners get a good living—yes, actually make money by keeping hens.

Now, this fact puts to blush the "learned" disciple of "new thought" in poultry culture, because, as a rule, the "learned" man has wrecked his venture on the rocks of too much theory.

Theory is fine, but practice is a whole lot better; and the old farmers and their wives, who are coining the "mon" by keeping hens, think little of

theory, but a great deal of practice. It is doubtful if they ever gave theory even a thought. But, whether they did or not, they've learned volumes in the school of hard experience and that knowledge is helping them out now, when making a living is a much harder job than it was some years ago.

All due credit to the good farm people who are doing their level best to prevent an egg famine! But, lest we be accused of unfairness, let us hasten to assure the "man of theory" that he, too, can line his purse with good dollars, acquired through the industry of his hens, if he will but apply to his business a part of the well earned wisdom of the practical farmer.

And what is it? What should be done to persuade a lot of cantankerous, non-productive hens to settle right down to business and pay a profit over their keep?

Well, we could mention several things that would help, but the corner stone of the structure—the keystone of the arch—is just simply good digestion on the part of the hen.

Does that sound far-fetched or foolish? Think a moment. You give your hens a certain amount of food each day. If a large part is wasted because of non-assimilation, it doesn't make eggs—that's sure.

If digestion is strong, and the greater proportion of the food is assimilated, then the hen has egg materials in abundance—that's equally sure. So, when you look at it calmly, there's a great deal of wisdom in strengthening the digestion of your hens.

This being now admitted, the question of "how" comes naturally to the fore. And it is an easy question to answer.

Dr. Hess Poultry Pan-a-ce-a is composed of natural tonic elements which act directly upon the digestive organs of the hen. It creates appetite and strength to properly dispose of a great quantity of food. It does this without leaving the fowl liable to ultimate breakdown from continued heavy feeding.

It follows, therefore, as a natural consequence, that hens getting Dr. Hess Poultry Pan-a-ce-a (small quantities only) in their ration, become prolific layers, because the ovaries are

Learn What You Buy

In his laboratory work of a lifetime and selling his various scientific products Dr. Hess (M.D., D.V.S.) has always taken our farmers into his fullest confidence. He believes that the farmer should know exactly what he buys. It is his belief that the more people that know what Dr. Hess Stock Tonic is made of the better. Then there is no mystery, no exaggeration—all claims that Dr. Hess Stock Tonic will increase growth and milk and relieve stock ailments can be verified by referring to the medical writings or the U. S. Dispensary. The formula for

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 Epsom Salts. Laxative.
 Nitrate of Potash. Stimulates kidneys.
 Charcoal. Prevents Noxious Gases.
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 The above is carefully compounded by Dr. Hess (M.D., D.V.S.), with just enough cereal meal to make a perfect mixture.

is printed in the left-hand panel here with extracts from the U. S. Dispensary. Dr. Hess even goes further and makes this proposition: Our Proposition—Feed Dr. Hess Stock Tonic to your horses, your cattle, your hogs and your sheep; especially when you are preparing for market. If you are not convinced beyond the shadow of a doubt that it has proven a paying investment by increasing digestion, improving the general condition and appearance, keeping your animals free from disease and free from worms, go to your dealer and he is under contract with us to refund your money.

Dr. Hess Stock Tonic in 25-lb. pails costs you \$1.00; 100-lb. sacks \$5.00. Only costs 6 cts. per month for the average hog.

Furthermore, for any condition which Dr. Hess Stock Tonic does not remedy, write us care of the Information Bureau and special prescription will be furnished you free of charge.

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 Ashland, Ohio

Dr. Hess Poultry Pan-a-ce-a

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DR. HESS & CLARK
 Ashland, Ohio



INSTANT LOUSE KILLER KILLS LICE

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constantly supplied with egg-building elements. It follows, also, from the same premise, that Hess-fed hens pay, and that Hess-fed chickens grow, and that Hess-feeders become rich. All of which proves that the theoretical hen man may become a practical hen man if he will.

Dump the litter from the nests off-center now and burn it just as soon as dumped.

"Utility" does not mean "mongrelism" any more than "thoroughbred" means "standard-bred."

It is claimed for the White Holland turkey that it is the hardest variety known, the most quiet in disposition, among the heaviest layers, quality of flesh surpassing all other breeds, early maturity, maturing the first season.

In shipping to market, send only gilt-edged dressed poultry, guaranteeing freshness. Have a tag on every carcass. Never send a scaly-legged bird to market. Quality rather than weight fixes the price of dressed poultry. Clean legs, free from feathers, and small combs, are points to be looked after in marketing broilers.

Ducks as a rule are hardy. They do not have gapes. The weakest part of a duck is its legs. Indigestion is apt to show itself in the young, if coarse sand is omitted in the food. It is always best to put a handful of sand in a pail of mash food, mixing it thoroughly. This will aid digestion. The oily nature of the feathers makes the ducklings vermin proof. Exposure to hot suns is fatal. There should always be a partial shade to the runs.

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The Most Instructive Poultry Book Ever Put on the Market.

It deals with facts, not theories. Its teachings are based on the actual work, experience and results obtained by its author on a plant of his own, covering a period of fifteen years. It is designed as a text book for those just entering the poultry business and may be read with profit by those already engaged in keeping hens. Its various chapters cover every phase of the business from shell to maturity. Nature's Principles, Start Right, Selecting a Variety, Standard vs. Utility, The Proper Mating of Breeding Stock, Hatching, Feeding, Rearing and Housing of the Chickens, Poultry Houses, Feeding and Caring for the Laying Stock, How to Build Up the Business, Preparing Birds for Exhibition, and many other chapters of equal importance. This information is clearly and concisely written and the work is worth its weight in gold to those seeking real poultry knowledge. Its author is the well-known poultry writer, Mr. Arthur G. Fymonds, who holds the distinction of contributing to more poultry and farm papers than any other writer on poultry topics in America. The book is neatly printed on the best quality of paper, and is nicely illustrated with half-tones. Price, postpaid, 50 cents a copy. Address: COLMAN'S RURAL WORLD, 821 Holland Bldg., St. Louis.

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 \$1.00 per day. One block from Post
 Office. Center of everything.



Horseman

Don't allow the horse to drink too much water at one time.

Don't feed your horses when they are very tired, especially grain.

Kicked by a mule a Kansas man was able to recall where he had hidden some \$3,000.

If you have any decided views on the training of yearlings, keep quiet when mingling with the boys at Lexington.

Keep the grain ration low for the horse whose legs stock badly during idleness, and give as much exercise as possible.

Down at Juarez in Mexico recently a horse called Little Bit won at a price of 100 to 1. Would you call that a "little bit"?

The news that Paderewski 2:05 1/4 will be on deck again this year may or may not be sweet music to the ears of some campaigners.

They are eating a lot of horse flesh in Denmark and other European countries these days. Over here we have a great deal more fun racing it.

A Detroit man has invented an automobile which can be turned into a buggy. This is an improvement over the present method of turning autos into junk.

Ever notice that when a man fails to agree with any big progressive movement he inevitably argues from the angle at which it has his pocket-book and not for the common good.

Richard Evans got out of his wagon to pick up a penny. As he did so a tree blew down, killed one horse and demolished the wagon. Which shows that it pays to take care of the pennies.

A man in Maine who is now ninety years old has been a horse trader all his life and says he expects to continue to "swap" horses until he gets ready for his trip across the Great Divide.

Dave McClary, who had the honor of being the first man to drive a harness horse a mile faster than two minutes, is now in the automobile business in New York City. If Star Pointer knew this he would turn over in his grave.

We are informed that while riding an unruly horse a few days ago our esteemed friend, Mr. P. W. Ray of Bowling Green, Ky., was thrown and had his arm broken. We sincerely hope this accident will not retard Mr. Ray in getting his show string ready for the season. We would regret very much to learn of Mr. Ray receiving a permanent injury of any kind.

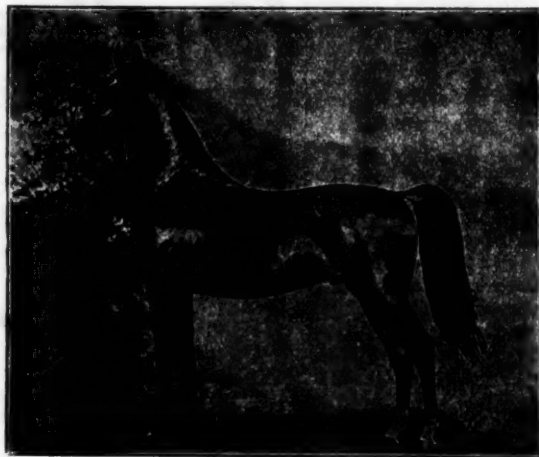
L. E. CLEMENT'S WEEKLY LETTER

Editor RURAL WORLD: There has been running for the last two weeks in the Breeder and Sportsman, an article on the thoroughbred blood used at Palo Alto. The whole thing but emphasizes the fact that the same results were obtained, that have always come, from the admixture of the blood that could not and does not trot. When the black pacer appeared that was rigged with breeching and the lines drawn through said breeching, to control the horse, we had all that was necessary for the production of harness speed. The whole breeding world, at that time, was looking to Messenger and other thoroughbred blood, to produce trotters of great speed and endurance. The believers in more plastic thoroughbred blood were looking for world champions from that kind of breeding and they are looking for it yet. They were disappointed then and they are and will be disappointed now. In 1843 they bred a reputed daughter of Sir Charles by Funk's Ham out of a pacing mare to the black horse, and in 1844, sixty-nine years ago, she foaled a gray colt. This colt was a trotter, and in 1858, at 14 years of age, he passed into the ownership of Woodburn farm, then under the management of Dan Swigart, one of the strongest believers in thorough blood that has been where he could show results. The same year, up in Dutchess County, New York, was foaled a brown colt by the blind horse, Mambrino Paymaster, dam untraced.

Pilot J., at Woodburn, was showing some speed, and James B. Clay of Woodford County, Kentucky, secured this horse. From the time of the arrival of Mambrino Chief, in Kentucky, there was great rivalry between the two, and a large amount of bombast put out, relative to the speed of the two horses. They never came together, and their relative speed was unknown, and is yet. In 1859 one year after Pilot Jr. found a home at Woodburn, the black gelding Pilot trotted at Providence in 2:28 3/4. In 1862 three years after, they bred Telltale running bred to Pilot Jr. and got the b. h. Tattler that when five years old trotted in 2:26, just once, at Louisville, Kentucky. It was the year previous, Brignatic, a bay son of Mambrino Chief, trotted one heat at Lexington, Ky., in 2:29 3/4. They were rivals and both siring speed for that day. The blood of Hambletonian was not at that time so much in evidence. Bruno, Dexter and George Wilkes constituted his 2:30 list, and Volunteer did not start his list until 1870. Dexter trotted in 2:17 1/4 in 1867 and Lady Thorn, two years later, in 2:18 1/4. She was the fastest mare of her day, and had speed never dreamed of by Dexter. So pronounced was public opinion, in favor of close up thoroughbred infusion, that John H. Wallace when he took hold of the skein, to unravel it, registered everything that traced to thoroughbred blood up to Vol. 3 issued in 1879.

Lady Thorn's dam was by Gano, and the 2nd dam was a fast natural pacer. It has been claimed she was running bred. The trotting that was done then was done in spite of the thoroughbred blood used, and not because of it. Almost every untraced animal was a pacer, and every pedigree was completed by "next dam thoroughbred." Horses were drawn muzzled and trained, as they trained the horses to run long distances. In 1843, before either Pilot Jr. or Mambrino Chief were foaled, there was bred at East Whitehall a brown colt by the Bullock horse, that was named after the town where he was foaled. He sired Rhode Island, sire of Governor Sprague. In the fifties sometime he sired American, sire of Nelly Holcomb 2:28, a daughter of Ameri-

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 Jefferson City, Mo.

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WILL MAKE THE
 SEASON OF 1913 AT \$50 TO
 INSURE A LIVING FOAL.
 My Major Dare is by My Dare,
 by Chester Dare, by Black Squirrel,
 by Black Eagle.
 His dam Lilly Rosebud 7133, by
 Elastic 233, by Red Squirrel, by
 Black Squirrel, etc.
 The dam of Elastic by Nat
 Brown 81; second dam Lilly
 Brown 711.
 Nat Brown is a son of the great
 Conover's Elastic 80, by Wax, and
 through this horse My Major
 Dare gets the blood of Bay Diomed,
 by the great Imp. Diomed,
 and this blood gives My Major
 Dare his snap and staying qualities.
 Correspondence solicited. Address
 PAUL BROWN,
 Pierce Bldg., St. Louis.
 Or ROBT. M. BROWN,
 Fair Oaks Farm, Paris, Missouri.

can Bay York out of a daughter of Black Hawk 5 was bred to Pilot Jr. in 1862, and foaled a gray colt, that was sold in 1869 or 1870 to Dr. F. M. Wetherbee of Boston, Mass., whose property he died. The year book says he passed to T. Armstrong, Mt. Union, Ohio. Bareena, out of Blandino, was bred at Woodburn, after Dr. Wetherbee had bought him. The season of 1871, the season Bareena was foaled, he was kept in Maine, where he sired Emma B. 2:22. I think he made two seasons in Maine, and was taken by Oliver Whitson (who is still breeding and racing) to New Burlington, Ohio, where in 1878 he bred Pilotur 13595 sire of Prize 2:22 1/4. Later he was taken to Mt. Union, Ohio, by Mr. Armstrong where his right eye was destroyed by one of Armstrong's neighbors, the left one having been destroyed by the negroes while breaking him, striking his eye with a whip-cracker, that left on the eye a mark

made by the knot on the whip cracker. Blandina was bred to Tattler 2:26 the season before she was bred to Bayard.

Bayard sired 9 trotters, 6 pacers. 13 sons sired 10 trotters, 16 pacers. 37 dams of 36 trotters 16 pacers. Tattler 2:26 sired 4 trotters. 9 sons sired 35 trotters, 17 pacers. 3 dams 3 trotters 3 pacers.

It was running blood against trotting blood. Bayard and his family were in the hands of parties who leased them. Fashion Farm in New Jersey did all that man, money and record dams could do for the sons of Tattler. The handicap was and is too great. The trotting bred trotter wins out the world over as the best horse a horse ever bred. You may kick against the pricks, or go with the crowd, it is no longer a home game. The whole world is interested and all countries vie with each other in trying to secure the best.

PRICE LIST

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Standard Bred Trotting Horses

—FOR SALE AT—

COLMAN STOCK FARM

Creve Coeur, Mo.

WILKNUIT 42923, bay stallion trotter, star, left hind foot white, 16.1 hands; weight 1250 lbs. Foaled 1903, by Red Roy 2:15 1/4, son of Red Heart 2:19. 1st dam, Monnutta, 2:31, by Wilkeswood, 2:33 1/4; 2nd dam, Miss Wickliffe, by Wickliffe 2:52 1/2; 3rd dam Monitor Rose by Monitor 1:37.

Wilknuut is one of the best put-up stallions I have ever seen, for style and action he can't be beat. He was never worked for speed, but can trot fast. He can show a 2:20 gait any time. He is a sure foal getter and a grand breeder. Price \$250.00.

MONDUKE 51549, black or dark chestnut stallion trotter, star, right hind foot white; 15.3 1/4 hands, 1100 lbs. Foaled 1909 by Baron Reaper 2:09 1/4, dam Alpha C. Wilkes (mat. rec., 2:24), by Wilkesmont 2:28, 2nd dam Pinafore by Abdallah Jr. 5:29.

Monduke is a handsome stallion, good gaited, good headed. He has not been trained, but can show better than 2:30 gait. I think he will be very fast if given a chance, and should make a great sire. Price \$250.00.

MONITOR RUSSELL 33727, trotter, bay stallion, 15.3 hands; weight 1200 lbs. Foaled 1895 by Alley Russell 4:02. Rec. 2:22, dam Monsulta, vol 13, by Sultan 15:13. 8nd dam Monitor Rose, by Monitor 1:37, 3rd dam Bay Dixie (dam of 3 in the list) by Abdallah Jr. 5:20.

Monitor Russell is a big, strong, good looking trotter; he is a good road horse, afraid of nothing, looks like a ten-year-old. He is sound and a good stallion for any purpose. Price \$125.00.

WILKTELL 55018, dark chestnut trotter, 15.3 hands, 1000 lbs. Foaled 1910. By Wilknuut 42923, son of Red Roy 2:15, dam Electwanda by Electeer, son of Expedition 2:15; 2nd dam by Reville 1472; 3rd dam by Strathmore 408.

Wilkteell is a nice looking colt, will be 16 hands, broke to harness. Price, \$175.00.

MONTEITH 54685, bay, two hind feet white, trotter, 15 1/4 hands; weight 1000 lbs. Foaled 1910 by Mondorf 22009, dam Monella by Saywa 12726, son of Onward 1400; 2nd dam Lady Elliston by Elliston 5387, son of Electioneer 125.

Monteith is a large, finely formed, good gaited, speedy colt. He showed quarters in 40 seconds as a two-year-old; he will make a fast trotter and a good stallion. Price, \$200.00.

NORWELL 56440, trotter, bay, right hind foot white, foaled 1911. By Reserve Fund 5302 (sire of 13 in the 2:30 list); dam by Electeer 31500, son of Expedition, 2:15 1/4; 2nd dam by Reville 1472, 3rd dam by Strathmore 408.

Norwell is a shapely, good-built colt, sound and all right. Broke to harness. Price, \$125.00.

MONKELL, bay gelding, foaled Sept. 16, 1908, 15.1 1/4 hands; weight 1050 lbs. By Mondorf 22009, dam Monella by Saywa, son of Onward 2:25; 2nd dam Lady Elliston by Elliston, son of Electioneer. Monkell is a very nice gelding, has been used on the road some; had no track work, but we timed him quarters in 41 at the trot and quarters in 36 at the pace. He would make a very fast horse if trained at the trot or pace. He is good gaited and good headed. Price, \$200.00.

MONJAY, bay gelding, small star and snip; two hind feet white; 15.1 hands; weight 950 lbs. Foaled 1910, by Wilkes Mondorf 22009. Dam Monjane by Wilkeston 22022, rec. 2:25; 2nd dam Jane Wilkes by Monitor Wilkes 6692.

Monjay is a good-looking trotter, he has lots of style, speed and action. He is one of the most promising colts on the farm. Price, \$200.00.

RESERVE VICTOR, chestnut gelding, 15 hands, 900 lbs. Foaled 1910; sire Reserve Fund, 2:26 1/4 (sire of 13 in 2:30 list), by Nutwood 600; rec. 2:18; dam Monafare Belle by Wilkeston 2:24; 2nd dam Monafare by Monitor 1:37.

Reserve Victor is a good-looking trotter, sound, clean and good gaited. Price, \$150.00.

Twelve weanling colts and fillies by Reserve Fund and Baron Make. Price, \$100.00 to \$150.00.

These horses can be seen any day at the Colman Stock Farm. The Missouri Pacific R. R. trains leave Union Station for Colman Station on the farm at 6 a. m. and 5:55 p. m. The Rock Island train leaves Union Station for Creve Coeur, one-half mile from the farm, at 7:31 a. m. Creve Coeur electric cars leave on Olive street every twenty minutes. Get off at the lake and walk two miles up the lake.

Most people are interested in reading the advertisements found in a first-class paper. They will read yours. One cent a word.

HOW TO PROPERLY GROOM A HORSE.

By W. H. Underwood.

It is often said that a good grooming is worth a feed of oats. Although a horse cannot live on a currycomb and brush, there is no doubt that in many stables less feeding and more grooming would be better for his health. Proper grooming is hard and tedious work and becomes extremely monotonous; but it must be done. Its use is twofold—to clean the horse and to put on muscle or harden muscle that is already there.

A horse must be kept clean if he is to be kept in good health. There are various ideas among farmers and other horse owners as to what constitutes cleanliness of a horse. If the mud has been scraped from the legs, and there is no straw and filth clinging to the quarters, many men consider that a horse has been cleaned, and all the currying he gets is by having the harness dragged off each evening.

Some may ask, "Why should a horse need so much grooming in a stable if he is healthy without it when out at grass or running wild?" The reason is not far to seek. The horse is usually kept in a stable for hard work, or at any rate work hard enough to make the skin act. Now, when the skin acts it secretes perspiration and scurf which should be removed. Moreover, horses when at work are given stronger foods, the waste products of which are partly excreted by the skin. If not removed they are injurious. In the pasture a horse seldom moves faster than a walk and eats the plainest of food—grass. Hence the skin does not require so much action. It acts throughout the night, and in the morning there is always a certain amount of scurf and dirt in the coat which should be removed by grooming immediately after the horse is watered and fed. The animal should be groomed again immediately after work and lastly just before the evening meal. A wisp should first of all be used to rub off the dirt on the outside of the coat and to dry the coat if wet; but this does not really clean it. The brush is the only thing with which to clean a horse's skin and coat, or nothing else will penetrate the latter. But if the coat be wet it must be dried with loose wisps first.

To use the brush properly the groom should stand well away from the horse, so that he has to lean his weight on the brush to support himself. He should brush with a straight arm in the direction of the coat, but if it is at all caked or very dirty a somewhat circular sweep should be employed. A currycomb should always be carried in one hand, and after every few strokes the body brush should be scraped against this to take off the scurf. No one who could see the amount that comes out would ever wonder why grooming is so necessary. When the coat is considered clean the wisping should begin. A wisp is made by taking a small rope of hay, tying it in a knot, dampening it and then flattening it by treading. It does not clean a horse much, but is good for his skin and has a wonderful effect in increasing or hardening muscle. One should lay it on hard and smack the horse with it. The muscles should contract at every blow. It thus acts as a sort of massage and in bad weather is an excellent substitute for exercise. There is no doubt that good wisping puts on muscles. Many horsemen content that grooming should take about an hour, but my experience is that a horse well and briskly groomed in half an hour is better off than one groomed slowly for an hour.

The best time to groom is after exercise or work. It is then that the skin is moist and the scurf is loose and easily removed. The harder the grooming the more friction is produced, which is the best thing in the world for the skin. The grooming should go on until the horse is clean. This can easily be ascertained by rubbing the fingers well into the coat to see if any dirt comes off on them. The coat if properly groomed will become glossy, and when it is brushed in different directions a pattern will be left. Some stud grooms make the strappers leave a diamond pattern on the quarters after grooming.

On cold days or after hard work the quicker the grooming is done the better. Some nervous horses break out into a cold sweat after being groomed and should be carefully watched and dried again. If a horse will not cool down after work, sponging out the dock repeatedly with cold water often has a wonderful effect. The mane and tail should be carefully brushed. If they are rough and dirty a mane comb may be used. Regular and sufficient exercise is highly necessary for horses kept in the stable—especially if they are not worked. It makes them feed well, hardens their muscles and keeps them in health.

MULES ARE SOARING.

There is a good deal of talk in Missouri, just now, about farm advisers. Every county that can afford one is getting a scientific instructor, and it will be a good investment. But there is a little piece of advice to farmers that we will give that will not cost them a cent. It is this: Raise mares. No, we do not mean mules—we mean mares that will raise more mares, and then these will raise mules. We have been noticing the teams hitched around the squares for twenty years, and every year, there are more mule teams and fewer mares. It is the same way, we are informed, over much of this state. Mules are high, in price, and soaring every day. Farmers forget that they cannot have mules to sell unless they have mares to breed them from. Used to be that half of the colts you would see following mothers would be mare or horse colts. Now you rarely see any kind of a colt following a mare except a mule. All remember the effect of the ranges selling off their "she" cattle? Prices went up, and have remained up. It will be that way with mares. They are not increasing and they will die out. Then, how will more mares and mules be obtained? To us it appears that there could be no investment made that would yield better returns than buying and raising large, strong mares. They will not bring in the money as quickly as mules, but they last so much longer as producers. And, we do not mean to say that an investment in broncho mares would necessarily pay, nor are the Oregon and Northwestern mares always good mothers. They are, generally, bred up from bronchos, and are not motherly.—Dunklin Democrat.

A number of our progressive farmers and stock raisers organized the Martinsburg Percheron Horse Association last week and purchased a fine black thoroughbred Percheron horse. The horse is four years old

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Save \$25

BARON REAPER AND BARON MOKO

Baron Reaper, 46711, record 2:09 1-4, chestnut, 15.3 1-2 hands, weight 1175 lbs.; by Early Reaper, 2:09 3-4, dam Expedition Girl (dam of Baron Reaper, 2:09 1-4, Miss Red Chute, 2:14 1-4), by Expedition, 2:15 3-4; 2d dam Monitor Rose by Monitor 1:37; 3d dam Bay Dixie dam of 3 in 2:30 list), by Abdallah Jr., 5:20; 4th dam Dixie, 2:30 (dam of Dixie Sprague, 2:22 1-4), by Pilot Jr. 12.

Baron Moko, 42229, by Moko, 24459, dam Axtelline, 2:24 (dam of Fanfarin, 2:11 1-4), by Axtell, 2:12; 2d dam Sistine by Kentucky Prince; 3d dam by Hambletonian 10. Baron Moko bay, 15.3 hands, 1150 lbs.; he is a show horse with great speed and action.

Baron Reaper and Baron Moko will stand at \$25, payable at time of service. Breed till you get a colt.

COLMAN STOCK FARM,
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Horsemen Here's Your Chance!

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FARRIERY

The Art of Shoeing Horses

Everyone who owns a horse should have a copy of "Shoeing Horses," by R. Boylston Hall, who has been engaged in "balancing" the feet of horses for over 45 years. The author is now 74 years old and wishes to dispose of some 300 books at a price which will enable horse owners to buy without hesitation. The author wants to do some good in the way of increased comfort to the horse, and we have arranged to take the entire edition and send them to horse owners with a yearly subscription to COLMAN'S RURAL WORLD for \$1.25. Send in your order at once, as they won't last long.

Address COLMAN'S RURAL WORLD,
821 Holland Building, St. Louis, Mo.

Forest Grove, Oregon, March 15, 1913.
Mr. R. Boylston Hall,
40 State St., Room 43, Boston:

Dear Sir—I wish to apologize for not acknowledging receipt of your book on Horse Shoeing before. Your book arrived just as I was moving, and I didn't have time till a few days ago to read it. You certainly deserve full credit for your work and the congratulations of every horse owner. The easy and clear way you explain your principles makes it a book that everybody can read and understand, this alone being worth more than all the treatises written on that subject so far. Hoping that you are getting all the credit due to you, and again thanking you for remembering me, I am, yours very truly,
(Signed) C. P. McCAN.

and from an association at Greely, Iowa, weighs over 1,900 pounds and was bought for \$1,800. The company is composed of the following: Joseph Lindeeman, Martin Hoer, Aug. Bertels, George Gersting, William Riutcel, George Lail, Frank Seckler, Casper Aulber, Henry Stuckenschneider, Jos. Duebbert.—Oracle.

The board of directors of the Montgomery County Fair Association met Monday, March 24. Among other things the directors have decided to offer more money than ever before for premiums. One of the features of this year's show will be a \$500 sweepstake premium for saddle horses, the money to be divided into 5 premiums. This, it is believed, will bring together some of the finest saddle horses in the world (the finest in the world can be found in Missouri). Other fairs throughout the State have adopted this plan of giving a large stake, and it interests the people. They will also give a sweepstake premium of \$300 for the best harness horse, same to be divided into five premiums.—Montgomery Standard.

The Pig Pen

PORK PRODUCTION.

There are dollars for Iowa farmers in the forage crop bulletin, No. 136, just issued for free distribution by the Agricultural Experiment Station of Iowa State College. It points the way for a use of green pasturage in pork production that will help the farmer to sell his corn crop for prices ranging as high as \$1.03 a bushel when hogs are quoted at only \$6 a hundred. Three years' of investigations, conducted by John M. Evvard, W. J. Kildee and E. T. Robbins, are included in the bulletin and it is one of the most complete reports put out by the animal husbandry section of the station.

The test leaves no doubt of the value of green pastures in fitting pigs for market. Compared with pigs fed in dry lot, forage fed pigs increased profits more than five fold in many cases. Alfalfa grazed pigs in 1911 gave a profit of more than \$3 each as compared with 61 cents for dry lot pigs. Different forages when grazed by pigs gave a profit ranging from \$30 to \$80 an acre, charging the corn used in the ration at 50 cents a bushel and selling the hogs at \$5. When the hogs were figured at \$6, the profits ranged as high as \$154 that being credited to an acre of rape forage.

Although one trial of rape showed such unusual profits, the experimentalists consider alfalfa to be the best forage crops for pigs. It may be counted on for the cheapest gains per pound and it meets a good many other demands that rape does not satisfy. The various forage crops netted the following acre profits, (counting hogs at \$5 and corn at 50 cents):

Alfalfa in 1911, \$65.99; red clover in 1909, \$32.34, in 1910, \$34.62; rape in 1909, \$27.50 and \$27.72; in 1910, \$37.51, and in 1911, \$80.37; sweet clover, in 1910, \$42.07; 1911, \$23.46; a mixture of oats, clover and rape in 1909, \$32.30; a mixture of oats, Canadian field peas and rape in 1909, \$22.83; in 1911, \$39.52, \$53.45 and \$64.63; and blue grass and timothy in 1909, \$15.23.

POTATOES FED RAW OR STEAMED TO FATTEN PIGS.

An experiment to test the feeding value of raw or steamed potatoes as supplementary feed with a grain ration, has been carried on by Robert Withycombe at the Eastern Oregon Experiment Station with interesting results which will be of special value this year on account of the superabundant potato crop.

The hogs in the experiment were divided into eight lots, and records of the different feed ration given each and the proportionate gain made were kept carefully. Each hog in lots 1 and 2 ate an average of 170.18 lbs. of barley and 509.53 lbs. raw potatoes, making a gain in weight of 60.70 lbs. Those in lots 3 and 4 ate 110.30 lbs. barley and 663.75 lbs. steamed potatoes and made a gain of 70.60 lbs., while those in lots 5 and 6 ate 188.60 lbs. barley and 564.80 lbs. steamed potatoes and made a gain of 78.10 lbs. Lots 7 and 8 ate 300.10 lbs. barley

without potatoes and made a gain of 69.5 lbs.

The last two lots, fed barley alone, were used as a check on the others to show more definitely the proportionate value of the potatoes. At the present market value of \$.07 a pound live weight, the hogs fed barley made a \$4.87 gain, which makes the barley feeding value \$1.62 to the hundred.

Lots 1 and 2, fed barley and raw potatoes at the rate of 3 lbs. of potatoes to 1 lb. of barley, made a \$4.25 gain, which gives the raw potatoes a feeding value of \$.29 to the hundred. Lots 3 and 4, receiving six times as much steamed potatoes as barley, made a \$4.94 gain, giving the steamed potatoes a feeding value of \$.47 to the hundred. Lots 5 and 6, fed three times as much steamed potatoes as barley, made a \$5.47 gain, making the feeding value of the potatoes \$.42 to the hundred.

It is noticeable that those fed six times as much potatoes as grain did not make quite the gain made by the others, but it required 85.25 lbs. less barley to make this gain, so the difference in feeding value is accounted for.

It is also noteworthy that the steamed potatoes are worth \$.13 more to the hundred than raw for feeding, as shown in the comparison of the gains of animals fed the 3 to 1 ration.

Prof. Dietrich of the Illinois Experiment Station says that the proper water supply for a pig ranges from 12 pounds daily per 100 pounds live weight at the time of weaning to four pounds per 100 pounds live weight during the fattening period, but few hogs get that amount.

On account of their large water content, potatoes alone are not suitable for feeding swine. Experimental results at many stations have shown that one pound of grain is equal to about four pounds of cooked potatoes or four and one-half pounds of potatoes raw. On this basis anyone can figure out the probable return of potatoes when fed to hogs. They must be fed with grain to return satisfactory results. Probably not more than four pounds of potatoes should be used for each pound of grain where rapid gains are desired.

The young pigs should have easy access at all times to a windproof, warm, well-lighted nest or bed. This does not mean an expenditure of dollars in up-to-date wood or concrete houses, although this is always money well spent to those who can afford it. Wooden pens may be battened cheaply, the floors raised so the little fellows are up from the mud and water. They simply can not thrive humped up, shivering in filth and frozen slush, no matter how much milk, mill feed, etc., they may be fed. Give them, then, a warm house with ample range and a dry bed of grass, chaff or straw, renewed at least once a week with fresh material first; after this, look to the feed.

For feeding pigs one month to five months of age, the value of skim milk may be very high if other suitable feeds for young pigs are not available. The same may also be true if the pigs are pure-bred and raised to sell for breeding purposes, for in such case it is necessary that they be well grown to sell readily at a good price. It is generally estimated that skimmed milk is worth from 20 cents to 30 cents a hundred pounds, or say, two cents or two and a half cents a gallon, for feeding hogs grown for pork. It will certainly be worth 30 cents a 100 for feeding young pigs at the present prices of feeds, when used with such feeds as corn, rice polish and wheat shorts. Five or six pounds of skim milk are worth about one pound of corn for feeding pigs; but the value of both is increased by being fed together.

The Shepherd

IOWA FATTENED RANGE LAMBS.

By John M. Evvard, Iowa Experiment Station.

Is it profitable to shell or grind the corn which is fed to fattening lambs? Does the roughage affect the method of preparation? Is it profitable to feed silage as a lone roughness to fattening lambs when the ration is properly balanced with shelled corn and cotton seed meal? How does silage as a lone roughness compare with alfalfa? Do silage fed lambs shrink more heavily than alfalfa fed when shipped from farm to market? Was lamb feeding profitable this year? To answer some of these questions was the object of the experiment just conducted by the Animal Husbandry Section at the Iowa Experiment Station.

Two hundred and sixteen lambs were divided into six lots of thirty-six each, and fed from October 29, 1912, to Feb. 26, 1913, a period of one hundred and twenty days.

We conclude from the study of this experiment in connection with previous data of our practical feeding tests:

First—That broken ear corn is most efficient for fattening lambs. This is especially true for a short fattening period of from 80 to 90 days. The observations upon these lambs strongly indicated that to get maximum returns from the corn fed, one should endeavor to "keep the feed just a little bit better than the lambs." This really means that one should start on whole or broken ear corn, and after a month or two when the lambs indicate that they desire shelled corn, it should be given to them largely in that form. Finally when the lambs become quite fat and one wishes to keep them thirty days or so longer, it may be advisable to finish on corn meal. The roughness seems to affect the method of corn preparation somewhat; the results indicating that ground corn is best on silage early in the feeding game, but becomes less efficient later in the period. Alfalfa or broken ear corn started out best, then shelled corn seemed to be relatively more efficient and finally at the close of the experiment, the ground corn lambs forged to the front.

Second—That silage as the "lone roughness" is not an efficient sheep feed. Previous trials have strongly indicated that dry hay should be fed along with silage to lambs. The poor showing of these silage fed lambs clearly indicates that silage should be supplemented with a leguminous roughage, preferably alfalfa or clover. When both silage and the clover are allowed, lambs will make more rapid and cheaper gains. The mortality is also less where the combination is used. Our practical feeding studies have taught us that silage is an especially good sheep feed; but that one should be careful not to depend entirely upon silage for the roughness.

Third—That alfalfa is a very acceptable lamb feed. More alfalfa should be grown in the corn belt. We need alfalfa in the Middle West because it is the greatest leguminous forage and hay crop for our conditions, yielding heavily of a high quality of food stuff.

Fourth—That silage fed lambs dress high but shrink quite heavily. The high dressing is due indirectly to the loss in shipping. The probabilities are that lambs receiving both alfalfa and silage would shrink much less than where silage is given alone.

Iowa is ideally situated for the feeding of western range grown lambs. We have the cheapest and most abundant corn of any state in the Union. That lambs can efficiently convert alfalfa, corn silage, and the corn grain into a compact and saleable product which ordinarily sells for more than

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the grain and hay would on the farm, and still leave considerable of the fertilizer behind, our feeders affirm. Our problems in the corn belt are becoming more and more Animal Husbandry Fertilizer Problems. The growing of these legumes which bring nitrogen from the air; and the feeding of these legumes along with corn to sheep, adds to the nitrogen of the soil, and furthermore, keeps up the organic matter so highly essential to a fertile field.

SHEEP-DIPPING.

The method followed in dipping sheep is to use an inexpensive, galvanized steel dipping tank set into the ground so the sides are about the right height to reach over conveniently. This is located at a convenient point and a dripping board is arranged for the draining of the sheep after drippings, so no more solution be wasted than necessary. One man catches the sheep and passes it along, when another takes it and places it in the tank, where it is immersed and passed on to the draining board.

After standing a few moments to drain, sheep are turned loose, but not allowed to go where grass is growing, as the drip might cause trouble if they were allowed to graze where it has covered the grass. The commercial dip of two gallons to 112 gallons water makes a quantity sufficient for a small flock. A permanent plant is a good thing where many sheep are kept, any where this is arranged the sheep should stay for a few moments in a pen with a cement floor, so arranged that the drip will drain back into the tank.

People who advertise generally do the business. There is no other way to reach the man you want. Try a small ad at 1 cent a word.

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We are offering some of our best herd sows at half their cost. Bred to Ideal's Emperor. Also some fine gilts. Fifty fine Columbian Wyandotte hens at half price. Fancy White and Brown Leghorn cockerels at \$2 each. Also Wyandotte cockerels cheap. E. J. REED, OHIO, ILL.

Mule-foot Hogs, Shetland Ponies and High-yielding Seed Corn. Dunlap, Williamsport, O., Box 474.

TO THE PERSON CONTEMPLATING GOING ON THE FARM, AND FARM LIFE.

Editor RURAL WORLD: This article is not written to discourage any one from entering the business of farming. It was written, however, to get the dreamer to stop or get busy. The extravagant statements made by some of the Land Companies of today have caused many a person to dream. Is it a wonder, when you see such statements made to the public as are published in some of our best papers in the land. The business of farming has many good inducements and some features that are bad. The bad features of farming is buying land you know nothing about, never saw and perhaps never heard of until you read an advertisement in a paper stating you will grow rich in a few years if you raise so and so down here or up there.

There are many points to be considered when one thinks of going on a farm. The most important of all, and the first one is your ready cash. Your ability to farm comes next. Without these two it is poor policy to start. However, if you have the ready money, say enough to make a reasonable down payment and some left over for a reserve fund and possess a slight knowledge of farming, with enough backbone to last through the first year or two, if you possess these two qualities you then are entitled to dream on further until your dream is realized.

The next point to be considered is location and soil. Many a man bought land that was not what it should have been. City people are the hardest hit in this way. Some people can't get rich fast enough at the work they are following, and when they happen to read some of that sure way to riches a la land agent, they dream at once, and with pencil and paper, start to figure, and according to their figures, are able to retire in four or five years. It seems to be human nature to strive after all get rich quick plans, and when we get a few dollars saved up, we at once try to find a way to double it. Many a man and his money were parted by buying land he knew nothing about. The trouble is we do not use common sense and feel as though we are in no need of advice. Swampy land has been sold in that way and the cost to drain it would break the average man.

There is only one sure way, look at the land while it is in crop. That is the best way I know of and the surest way of not getting stung. You would not buy a diamond from a man on the street at night, so why buy land you didn't see.

This paper surely gets into many homes in the cities where just the dreamers live. Farm life is very nice indeed, it is, however, different from what many city people think it is. When these city people drive through the country and see the fine kept cattle, the cultivated fields, the orchards in bearing, little do they stop to think that they represent perhaps years of hard work by the owner. These same unthinking people refer many times to the farmer as an independent man, leading an independent life, but never giving one thought what made them so. Work and hard work, and again why can he retire, why just work and economy caused him to retire.

Now the farm is not the only place on earth where a person must work and work hard, nor is farm life the only one you can be independent and retire on, but many land agents in their advertisements try to make people think so. If you practice the rule in your business that the farmer does in farming, you will be able to be

independent, too. Work, save and ready to learn. Farming is healthful, pleasant and above all, is one where the best is brought out of a man.

Nowadays it takes good business judgment and a willingness for work to be a successful man in any branch of business, whether it be doctor, merchant, farmer, etc. To be able to work is a blessing we ought to be thankful we are able to work.

Farm work is far from being monotonous. There are so many things to do that one gladly gets rid of one to see what comes next. Such a feeling should be in every person's heart who contemplates going on a farm. It is just these things that go to make farming a success. The independent farmer is the successful one. Success comes from hard work, not only on a farm, but in every walk of life. Any person thinking he is going to have a "Pipe" on the farm will be greatly mistaken. The only pipes there are sewer pipes and drain pipes. It is time some truth of farm life be told to persons contemplating going on a farm.

I hope this article will be read by just those persons. If it is, its purpose has been fulfilled. I could go to greater depths in this subject, but space will not be allowed me. At some future date I will go more thoroughly into detail. F. O. KUHN.

Williamsville, N. Y.

THE FARM ADVISER MOVEMENT.

Many seem to have the opinion the adviser is a man who is engaged to ride over our county as an overseer or boss and tell the farmer how he must farm his land, and naturally fall out with the man before he is engaged, writes "Farmer" in Shelby Democrat. First of all, the duties of an adviser is not to command, he must be a man thoroughly in touch with the state agricultural station, familiar with the work done there, and should work under the direction of that institution and should be able to give the farmers a clear idea of the value of fertilization, combinations of feed stuffs, also cross, in and line breeding of live stock, and the hundred other things we should know, but do not know.

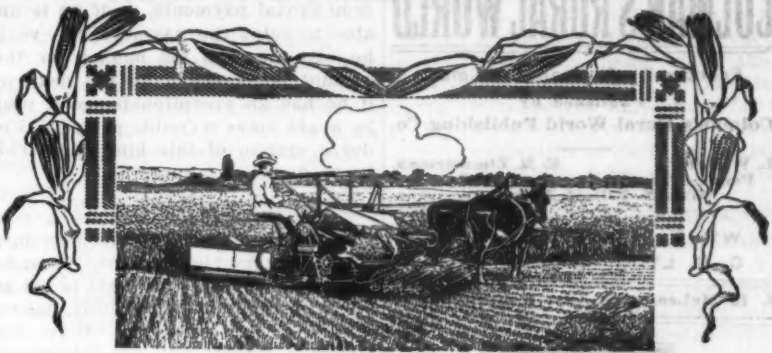
Anyone at all familiar with the matters at Columbia experiment station knows that there is a world of information available there, which can be had for the asking, or better still, a trip to the station. Yet how many farmers avail themselves of that information? Less than five per cent.

The duties of an adviser then is to bring this information himself to the farmer who will not go after it himself; or who can not. Sometime ago I met an old man from Pettis county who farms 100 acres of land, who said that if the matter of engaging an adviser had been submitted to a vote the farmers would have defeated it overwhelmingly at first.

But a commercial club engaged the man and sent him out. After one year the farmers advised that they would engage the man themselves, and also purchased an auto, because he was unable to meet the demands for his assistance by driving over the country with a team. They were also considering the advisability of hiring an assistant.

Having been born on a farm nearly fifty years ago, and having six hundred and forty acres of land under my care, I would gladly contribute my part toward a good adviser as I realize there is much for me to learn yet. In fact I am now being taught some of the things I thought I knew twenty-five years ago.

Why not sell your country produce to the city folks through the parcel post? Advertise what you have for sale at 1 cent a word.



How We Help You Harvest Your Crops

THERE are at least two good reasons why you should buy I H C harvesting and haying machines and tools. One reason is that we sell only the most efficient machines, the other that we render the service necessary to keep those machines at work all the time during the harvest. You can afford to delay almost any other farm operation, but the harvest you cannot. If the grain is to be marketed at the top price it must be cut, bound and shocked all in the space of a few days. The machines and tools used for work of this nature must be efficient. If for any reason they should not do the work you demand of them, the greater part of your season's effort would be wasted. You can avoid any chance of failure by investing your money in the time-tried, field-developed machines which bear the following well-known names:

**Champion Deering
McCormick Milwaukee
Osborne Plano**

An I H C harvesting machine will always reap the full crop, whether grain be tall or short, standing, down, or tangled—that is part of its efficiency. But when the unforeseen accident occurs, the unavoidable breakdown which may happen even to the best machine, that is the time when you appreciate to the full the prompt service given to all I H C machine users by our organization. If an accident does happen to an I H C machine, somewhere within easy reach, either at the local dealer's place of business, or at an I H C general agency, seldom more than 50 miles away, you can secure promptly any part or parts that may be needed to put your machine back into commission again. This is I H C service—a service organized and maintained for no other purpose than to assist you in harvesting your crops.

Now is the time to decide whether or not it will be wise to buy new machines. It certainly is not wise to take the risk of waiting until the harvest is ready before knowing whether a new equipment is needed or not. Visit the local dealers, get I H C catalogues, see the machines, and make up your mind now which machine will be best for you to buy.

While you are looking at machines, remember also that good grain binding requires good binding twine. The best machines will not bind satisfactorily unless a strong, smooth binder twine of uniform size, strength and quality is used to tie the bundle. A twine of this description is sold under the trade names of **Champion, Deering, International, McCormick, Milwaukee, Osborne, Plano**, each brand made in four grades, manila, pure manila, sisal and standard.

Your local dealers have catalogues which explain thoroughly all the best points of the different machines. They will give you full information, or, if you prefer, write the

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The RURAL WORLD is published on the cash in advance system and the paper is stopped when the time paid for has expired. If subscribers receive a copy with this notice marked, it is to notify them their time has expired and that we would be very glad to have prompt renewal. While our terms are One Dollar per annum—a low price considering the high quality of paper we use—yet so anxious are we to extend the benefits that we believe the RURAL WORLD confers on all its readers that we will for a limited time take subscriptions, both new and renewals, for 50 CENTS A YEAR. "Once a subscriber to the RURAL WORLD, always a subscriber." Farmers can't get along without it. Please remit P. O. money orders, or checks on St. Louis banks, as our banks all charge five cents for cashing local bank checks, however small. We appreciate the kind efforts of our patrons in all parts of the Union in speaking good words in behalf of the RURAL WORLD, and it is to these efforts we attribute our constantly increasing circulation.

The co-operation of reputable and responsible concerns, through our advertising columns—firms whose products and methods are creditable, and upon whose representations our readers may rely—is respectfully solicited, that our advertising pages may be really representative of American Manufacturers and their goods.

Contributed articles, communications, etc., on pertinent subjects, are invited. The Editor assumes no responsibility therefor, however, and their publication in nowise implies editorial endorsement, beyond the Editor's belief that frank and courteous discussion of all questions within the province of this journal is to the best interests of our readers.

Entered in the post office at St. Louis Mo., as second-class matter.

During the past week of disastrous storms and loss of life the nation has risen to the necessity and exemplified grit and humanity.

President Wilson's cabinet is one that will be effective both for the purposes of good government and the best interests of the whole people.

With the fall of Adrianople and the piercing of the fortifications outside of Constantinople, the supplanting of the cross for the crescent seems near at hand.

In response to an invitation to be present at the National Drainage Congress to be held in St. Louis April 10, President Wilson says the flood calamities of last week "made clearer than ever before the imperative and immediate necessity for a comprehensive and systematic plan for drainage and flood control."

All of the old countries have some method of financing the farmers. Some of the loans run as far as

thirty years. The farmer makes semi-annual payments, or if he is unable to raise the payment one year, he can draw on his banker for the amount and make it up the next, or if he has an exceptionally good year he might make a double payment. Under a system of this kind there can be no financial failures.

A great many people make a mistake in concluding the farmer does not understand his problems. What he needs from friendly interests is not so much instruction in production, but co-operation in marketing. Give the farmer a market and our instructors in production will become benefactors; give us profits and our boys will return from the college to the farm; give us dividends and we will build up a great civilization, but production without profit is no incentive to activity.

It is interesting to note in various parts of the country the gradual improving methods in any of the States in regard to road improvement. Arkansas has just voted to establish a State highway department, while Idaho has done the same, in addition to which an appropriation of \$200,000 has been made to be used in laying, surveying, and starting the construction of a system of State highways. Promising legislation is pending in Maine, Pennsylvania, Missouri, and several other States.

The St. Louis County Farm and Market Bureau advisory council in Clayton have decided to form a corporation with a capital stock of \$10,000 to provide a market in St. Louis, where the producer may sell direct to the consumer. A committee of three was appointed to confer with City Counselor William E. Baird in St. Louis. Their mission is to suggest the drafting of an ordinance for the establishment of a market or markets. A majority of those present expressed their preference for a large central market.

The farmers of this country are disproving the charge of being slow in adapting themselves to new conditions by the way in which they have availed themselves of Uncle Sam's new parcel post law. Today you will find the farmer sending his butter, eggs, etc., to market, exchanging them for sugar, coffee, etc., without having to spend from half a day to a day away from his farm. As people come to realize the convenience of this law we believe it is safe to predict that the government will be compelled to add greatly to their present equipment in order to care for the additional volume of business.

Psalms cxix, where the Bible opened when the oath of office was administered to President Wilson, is the longest chapter in the book, but it is chiefly distinguished because in the original Hebrew the poetical form is an alphabetical acrostic consisting of 176 verses divided into 22 stanzas of eight verses each, corresponding to the 22 characters in the ancient alphabet. Each stanza begins with the letter which appears at the head of the section, and all the verses, or couplets, within a stanza also have the same initial. The psalm occupies a place very near the middle of the Bible so that when the book is opened at random, the eye is likely to fall on the famous chapter. In spite of this fortuitous selection, however, it is worth while to notice how appropriate it was that the former professor of constitutional government should kiss a passage which some commentator has called "the most precious of all the psalms in its overflowing and glorious passion of love for the law."

IS "BOB VEAL" POISONOUS?

Laws which are in force in various countries, notably in the United States, forbid the sale of veal under one month of age for use as human food. There is a widespread belief that "bob veal," as the flesh of these very young calves is popularly called, has properties detrimental to health. It is well known that the flesh of younger animals is richer in water and more tender than that of older ones of the same species. The proportion of the nutrient substances increases with age. Older animals likewise yield more of the extractive bodies; so that soup prepared from veal is by no means comparable with that yielded by the meat of fattened cattle. Veal is commonly regarded as more difficult of digestion than beef, the reason being assigned to difficulties in the texture of the flesh.

Prof. P. A. Fish of Cornell University has reported a series of experiments in which bob veal was compared with market veal and with beef in respect to some of its properties. Experiments were also carried on in which bob veal was eaten in seven families aggregating twenty individuals ranging from 2 to 60 years of age. The health in all cases was apparently normal; nor did any family refuse a second helping when another carcass became available. In all veal there is a deficiency of fat as compared with beef. In bob veal this deficiency is naturally somewhat more pronounced, because fat is a result of growth and age under proper nutritive conditions. In the use of bob veal this deficiency may be overcome to a considerable extent by cooking the veal with pork or other fat. Prof. Fish is of the opinion that bob veal is in no way injurious when used as human food. The desirability of changing the present regulations and existing legal restrictions regarding the sale of very young veal is thus thrown open for discussion, says the Journal of the American Medical Association. The subject is one which should not be dismissed or settled by a few haphazard experiments or hasty generalizations.

Many think they haven't time to test the seed corn, says C. M. Long of Johnson county. The writer found time last year to test seed for 90 acres of corn. A 95 per cent stand resulted, in a spring noted for poor stands. In this way he saved the time that nearly every neighbor had to spend planting a second time or replanting a poor stand. He believes it is more economical to spend a day or two testing seed corn now when we can't get into the fields than to spend three or four replanting when we ought to be plowing.

Attacks on the pure milk regulations of several large cities are to be made before the Supreme Court of the United States. An attempt will be made shortly after the court reconvenes on April 7 to show that the Minneapolis ordinance requiring the tuberculin test of dairy herds is unconstitutional. On the same day the court is expected to announce whether it will review a case in the Washington courts, wherein it was held that milk containing more than a certain number of bacteria was forbidden interstate transportation by the federal pure food law.

The greatest of all American problems, Secretary of Labor Wilson thinks, is "a proper distribution of the wealth that is created." Socialism offers no settlement of the question. No man as yet, no party as yet, has hit upon a plan that is practicable. Let "every step that is taken, either in the economic field or by legislative action which gives the

workers on the farm, in the mine, and in the shop an opportunity of securing a larger share of the things their labor has produced, is a step in the direction of the solution of the problem of distribution."

Many American manufacturers and exporters are apparently unaware of the facilities in the Bureau of Foreign and Domestic Commerce, Department of Commerce, for answering inquiries concerning the customs duties and customs regulations of foreign countries. Such inquiries are often addressed to American consular officers in foreign countries, as well as to commercial agencies, information bureaus, and foreign consulates in the United States. Replies to inquiries addressed to United States consular officers can be expected only after the lapse of considerable time.

Renewed evidence of the activity of the manufacturers of the United States is found in the February import figures, just compiled by the Statistical Division of the Bureau of Foreign and Domestic Commerce. January figures showed larger importations of manufacturers' materials than those of any earlier January, and the February figures, just received, also show larger quantities than ever before. Cotton, wool, silk, fibers, rubber, tobacco, lumber, tin, copper, and iron ore are the principal manufacturers' materials imported, and in practically all these the imports of February exceed those of February last year, and for the 8 months ended with February the figures exceed, in every case, those of the corresponding period of the preceding year.

Two billion dollars' worth of merchandise is now being imported annually into the ports fronting upon the Pacific Ocean. About 10 per cent of this is drawn from the United States, 25 per cent from the United Kingdom, 8 per cent from Germany, and 7 per cent from other European countries, the remaining 50 per cent being drawn from areas adjacent to the importing port or country. This statement is compiled from a table just prepared by the Statistical Division of the Bureau of Foreign and Domestic Commerce for publication in the Statistical Abstract of the United States. The table shows the imports drawn from the United States and the share of the exports sent to the United States, and thus renders practicable a measurement of the commerce of the Pacific, to which a new door is soon to be opened.

Practically one billion dollars' worth of merchandise from foreign countries entered the United States free of duty in the year just ended. The exact figures, just completed by the Statistical Division of the Bureau of Foreign and Domestic Commerce, are \$992,376,460, against 794 million in 1911, 636 million in 1907, 530 million in 1905, 408 million in 1902, and 342 million in 1900, the value of non-dutiable merchandise imported having thus practically trebled in the last twelve years. These figures of duty-free merchandise relate only to that coming from foreign countries. If to these were added the value of merchandise entering from Hawaii and Porto Rico, all of which enters free of duty, the total value of non-dutiable merchandise entering continental United States in 1912 would be \$1,084,000,000, since the merchandise received from Hawaii in that year was valued at \$50,000,000, and that from Porto Rico, \$41,000,000. While most of the merchandise entering from the Philippines is also non-dutiable, it is included in the general group of imports from foreign countries, since those islands are still classed with foreign countries in the records of our foreign commerce.

SOME HOME MIXING.

By C. D. Lyon.

We are using commercial fertilizers on our entire corn crop of twenty acres this year, but as we could not get the agents to order the goods we wanted, we just had them order the raw materials and we will do the mixing.

Our mixing outfit is a very expensive one, consisting of 125 pound ice scale, spring balance style, cost \$1.25, a half bushel measure with bail, cost 50c, a long handled shovel, cost 75c, and two ten-quart galvanized pails, cost 40 cents, a total cost of \$2.90, but every one of these things is in almost daily use on every farm and they will all last for many years.

Smith dropped in as we were mixing, and we got the benefit of all that he had learned from the fertilizer agents in town.

Says he, "Well, you are doing your own mixing and that is too darn much trouble for me, so I just went to town and bought mine, already mixed, from G. B. Slicker. I got the 'Black Hog' fertilizer this year, but Skinem tried awful hard to sell me the 'Blue Head,' and Roper had the 'Red Star,' but I think the 'Black Hog' has got the most bone in it."

I asked him to give me the analysis of the goods he had bought, but he could not tell me any more than that he had paid \$23.00 per ton for it, giving his note for six months at 6% interest.

I knew that he had bought a 1-7-1, but I did not tell him so, and he soon wanted to know what that stuff was that looked so much like salt.

We told him it was muriate of potash, and that the 1,000 pounds we had bought had cost us \$24.50 laid down at our station, and his comment was, "Why, that is a dollar and one-half more than I paid for a ton, and mine has potash in it too."

Although we knew after the stuffing the fertilizer agents had given him, that it was no use to try to explain to him that our 1,000 pounds of muriate contained more potash than 25 tons of the goods he had bought, but I did it and he did not believe a word I told him.

We were using a 14% acid phosphate; which cost us, cash, \$15.50 per ton for our phosphoric acid, and mixing with each 100 pound sack 40 pounds of muriate, first pouring the acid phosphate, five 100 pound bags at a time, on the barn floor, then adding 200 pounds of the muriate.

Smith stayed with us, my son and I, just an hour and a half, and a good part of that time Smith and I were sitting around talking, but at the end of the hour and a half we had mixed two batches, or 1,400 pounds, and had it in the bags.

When we went home I made a rough calculation of the comparative cost of our fertilizers and the comparative amount of plant food in them, as we are both going to use about 200 pounds per acre.

His will cost him \$2.30 per acre, and he will use 2 pounds of nitrogen, 14 pounds of phosphoric acid, and 2 pounds of potash per acre.

He will allow 50c per ton on both phosphate and muriate in counting the cost of ours to make even figures, and our fertilizer will cost us \$1.52 per acre, using 16.8 pounds of phosphoric acid, and 40 pounds of potash.

When the corn is about knee high, and its roots have almost taken possession of the entire top soil, we will broadcast 50 pounds of 16% nitrate of soda, which cost us at the rate of \$55.00 per ton in 1910, or \$1.37, thus adding 8 pounds of nitrogen, bringing the entire cost of the fertilizer up to

\$2.89 per acre, or 59c per acre more than Smith's cost.

Now let us tabulate the figures for comparison:

Smith, nitrogen 2 pounds, phosphoric acid 14 pounds, potash 2 pounds.

Us, nitrogen, 8 pounds, phosphoric acid 16.8 pounds, potash 40 pounds.

Cost: Smith, \$2.30; Us, \$2.89 per acre.

Now next fall when we go to drill in our midst, we will use 100 pounds 14% acid phosphate, and 25 pounds muriate of potash per acre, at a cost of \$1.42 per acre, while Smith will use the Black Hog 1-7-1, 125 pounds per acre, at a cost of \$1.44 per acre.

There are Smiths in every neighborhood, and there will be until farmers realize that they are paying too much tribute to fertilizer mixers.

WHOLESALE BUYING.

By C. D. Lyon.

When I was a boy, father always bought a barrel of sugar, a sack of coffee, twenty gallons of New Orleans molasses, and half a barrel of white fish every spring, and when fall came he bought a bolt of flannel, a bolt of "domestic" or brown muslin, twenty yards of jeans and usually a four-pound bale of stocking yarn. Most farmers did the same, but of late years most of us buy coffee and sugar by the dollars' worth, and our dry goods by the ten yards or so as needed.

Just at the present time granulated sugar can be bought by the 100 pounds at less than five cents per pound, as the sugar trust has put it down to prevent a reduction of the tariff on sugar, but as soon as the trust sees that no tariff legislation adverse to this interest is made, sugar will go up 2 or 3 cents per pound.

I think that when Congress meets sugar prices will go still lower, and it will be a good plan to lay in 100 to 300 pounds, as the tariff on sugar will not be touched, and when this is certain, watch prices soar.

As we buy most of our coffees in the roasted form, large quantities would lose in flavor by long keeping, but by watching the market, we can always find a low stage, and then a purchase of 10 to 25 pounds will mean a saving of 2 to 8 cents per pound.

It is impossible to buy pure New Orleans or Louisiana molasses in the market, as it is all adulterated in spite of the pure food laws, but it can still be had by ordering in 12-gallon can cases from small factories in small southern states.

Extracted honey is almost as cheap as the best grades of molasses, and in families where there are many children, a 100 pound can at \$7.50 is a "good buy," and is as cheap as preserves or first-class molasses.

We pay 10 cents per pound for rice at the grocers, yet we see a better grade advertised, freight paid, for \$5.50 per cwt., and while we people at the north do not use much rice, two or three families could combine and buy a sack at a saving of nearly half.

It is the same with a good many other things, nails for example, 3 1-3 to 4 cents per pound retail, \$2.25 per cwt. by the keg, or brooms which sell singly in the stores at 100 per cent over dozen prices.

The local merchant is one man, and we ought to consider his welfare, but the welfare and the prosperity of one man cannot be put into the balance against that of a score or a hundred purchasers.

We must buy where we can buy to the best advantage, and with a thorough organization among farmers. Each and everyone of us can save enough every year to pay our taxes, and we can organize with a view to having these taxes reduced.

ITEMS OF INTEREST.

Some people are born rich, some have riches thrust upon them by the heirship route, and some sell 671-pound short yearling steers from Tulsa, Tex., at \$8.40 on the Kansas City market.—Drover's Telegram.

Neither President Wilson, Vice-President Marshall, Secretary Bryan nor Speaker Clark will serve wine at their tables. That is the most effective fight that can be put up for prohibition—no denunciation, just quiet, dignified example.—Pocahontas Herald.

The prospect at this time looks good for all kinds of tree fruits, and the wheat fields never looked more promising than now. . . . Many of the farmers will build silos this summer in time to store their corn crop for winter silage.—Aurora Advertiser.

Stockmen did not think there were any hogs in the county to amount to anything when they started in to buying in the early fall, but they have just kept right on buying and buying, and still there are a good many hogs here. There is no place where the people can raise hogs so easily as here in Ripley county.—Doniphan Prospect-News.

Henry Nunnally was offered \$80 per acre for his farm of 360 acres east of town Monday by Mr. Culberson of Montgomery City. Some details as to stock and implements, caused the trade to fall through for the time. This shows a fine advance in lands in this community as Mr. Nunnally purchased it five years ago at \$65 per acre.—New Florence Leader.

An aged farmer in Pettis county was opposed to a farm adviser, but soon after Mr. Jordan took office he visited that community and showed, by use of a little piece of litmus paper that the soil contained acid and that by applying lime alfalfa could be grown. Now this same farmer is raising and harvesting three crops of hay annually where only one grew before. He has changed his mind about "book farmin'."—Bolivar Herald.

John Devenyns, of near Claryville, was trading at Perryville last Saturday. He said that the ditching boat was at the bridge near Bud Pillars, preparing to remove the bridge so as to get through to the other side. Mr. Devenyne is a firm believer that the drainage work being done will be of vast benefit to the farmers of the bottom, and that corn and alfalfa will grow in abundance where water now stands on thousands of acres.—Perry County Republican.

Five days in the week Mr. Jordan Farm Adviser of Pettis County, devotes to field work, to visits to farms where he has been invited to consult with the owners or to hold neighborhood institutes. At these farm gatherings the attendance has been from fifteen to more than 600, depending upon the location of the farm and the nature of the meeting. One day in each week is office day and the farmers pass up and down the steps leading to headquarters reminds one of the crowd that comes and goes to and from a country town postoffice, following the arrival of the daily mail on paper day. Some of the visitors have with them prize corn, wheat, oats, or alfalfa; others take some "pesky insect" to have identified and to learn how to fight it; others go for consultation on crops.—Paris Appeal.

The sixth demonstration farm on the Iron Mountain tracks of the Missouri Pacific-Iron Mountain system has been located at Arcadia, Mo., on the grounds of the Arcadia College adjoining the right-of-way of the rail-

road. Rev. Father John Adrian, of the college, who has been a student of scientific farming for some time, will be in charge under the general supervision of L. A. Markham, Commissioner of Agriculture for the I. M. Eighteen acres will be placed under cultivation at once, and within a year or so the farm will be extended to twenty-five or thirty acres. The business interests and residents of Arcadia united in a movement to have the railroad select this site. The farm will also be used in conjunction with the course in agriculture included in the college's curriculum.—Llan Democrat.

The free county bridge across the Osage at Warsaw was wrecked last Saturday afternoon at 3 o'clock, and 94 head of cattle, their owner, H. L. Olmstead, of Edwards, and his horse dropped fifty feet to the water. Mr. Olmstead was only slightly injured. Twenty-nine head of cattle were either drowned or killed. The horse was not injured and swam to the bank. Last Saturday afternoon Mr. Olmstead and his son, J. H. Olmstead, started to their farm at Edwards with 97 head of cattle. When they got to the bridge the cattle were divided and J. H. Olmstead took the first bunch across and when they got to the south side the cattle stampeded and started back across the bridge—at the same time H. L. Olmstead had started with his bunch. They were unmanageable and had met near the center when the bridge collapsed.—Benton County Enterprise.

Last month P. E. Howe of Route 25, Kingsville, sold his farm of 204 acres, known as the Figona place, to G. F. Schroeder of Clarion, Ia., for \$85 an acre, which price establishes a new record in that part of Johnson county. Mr. Howe will hold possession this year with all crops, etc. This farm was purchased by Mr. Howe three years ago at \$65 an acre, but the combination of careful farming, plenty of paint, necessary repairs, and attention given to neatness as well as productivity, brought about a satisfactory advance in the value. Another thing that perhaps contributed to the value of the place is the road, Mr. Howe making the claim that he has the best mile of dragged road in the county, not excepting the special roads made last year. We have not yet learned Mr. Howe's future intentions, but the Progress serves notice on him if he attempts to leave the county, we will apply for an injunction to restrain him.—Holden Progress.

There was a small but enthusiastic meeting of the Marion County Corn Growers' Association at the courthouse last Saturday afternoon, the principal business being the election of officers, which resulted as follows: Geo. V. Saffarrans, president; John Hansbrough, secretary and treasurer. Vice-presidents for the various townships: Union, R. E. Powell; Warren, Philip Kizer; Liberty, A. White, Jr.; South River, Godfrey Kaden and Henry Durst; Fabius, Frank Lucke; Miller, G. S. Keller; Mason, Geo. W. Pine; Round Grove, W. P. Bowles. The date for the annual exhibition was not definitely set, but it will be held in Palmyra some time this fall, and one of the principal features will be a fifty dollar prize for boys under the age of twenty years. This amount will be given in the sums of 25, \$15 and \$10 to the boys raising the most corn on an acre of ground. Free seed corn will also be furnished to the boys if they will make application to the secretary.—Palmyra Spectator.

Clem — The suffragettes have captured Michigan.

Lem — Yes, the Michigonoos has now the same rights as the Michigan-der.

Home Circle

GROWING OLD.

Grow old along with me;
The best is yet to be,
The last of life, for which the first
was made:

Our times are in his hand
Who saith, "A whole I planned,
Youth shows but half; trust God: see
all, nor be afraid!"

For thence—a paradox
Which comfort while it mocks—
Shall life succeed in that it seems to
fail:

What I aspired to be,
And was not, comforts me:
A brute I might have been, but would
not sink i' the scale.

—Robert Browning.

Written for THE RURAL WORLD.

PROPAGATING ROSE PLANTS.

By Helen Watts McVeigh.

Are you "short" on rose bushes, and do you want to increase your stock? It is easy to do, with most varieties, especially the ever-bloomers, from cuttings, and this can be done also from cuttings of the hardy roses that bloom only once a year, but the cuttings require different treatment, and different seasons. For the ever-bloomers, take cuttings from the half-ripened wood immediately after blooming; take the cutting from a shoot that has just flowered, have it about six inches long; insert half its length in loose garden loam, turn a fruit jar, bell-glass, or even a large tumbler over the cutting, pushing the rim down into the soil, and keep the soil a little moist about the glass. Do not remove the glass, but leave it as it is until the plant is well started to growing. You will know when the rooting is taking place successfully, as the leaf-buds will begin to grow. A good place to root the cuttings is under the parent bush, in a sheltered and rather shaded situation. The plant must not be moved until next season, when it will be a sturdy plant, and well-rooted. For this purpose, save all defective fruit jars, tumblers, or jelly-glasses. If you have time to work with them, other way is to make the cuttings as soon as the petals fall from the stalk, of course cutting off the seed berry, and have a box of sand, about six inches deep of sand in the box. Insert the cutting in this half its length, or just so as to leave one or two leaf buds above the surface, turn over the cutting a tumbler, or other glass vessel, and set in the sunshine. Keep the sand moist, but not sloppy. The cuttings that will grow will soon push out white, thread-like roots from the calloused bottom-ends, and when this is done, the leaf bud will start into growth. The inverted glass will conserve the moisture, and act as a "greenhouse." When the cutting has got well started to grow, have ready some pots—paper will do—with some good, friable garden soil, and lift the plant very carefully, so as not to disturb the tender little rootlets, and set on the soil which has been put into the bottom of the pot, then carefully sift soil around the plant with the fingers until the pot is full, tapping it to settle the dirt; then wet the plant, fill in more soil until the pot is about full. Keep this in a cool, shaded place for a day or two, or until sure the young leaves will not

droop; then have a place in the garden ready for the plant, set it in the soil, protect it with the glass, and treat as as other growing plants. Before setting in the soil, be sure the plant has recovered from the shock of lifting from the sand, and has made up its mind to grow. Any disturbance of plant roots, no matter how carefully done, will in some degree shock the plant and cause it to stand still for a more or less time. If it suits you better, take a thrifty shoot, cut on the underside of it a slanting incision with a sharp knife, just reaching into the wood through the bark, and lay the incision in a shallow trench into which it can be bent without injury, fasten it down with a forked peg or stick, cover with soil, wet it, and keep the soil just moist until growth begins. Leave until next spring, then cut loose from the parent plant.

The hardy roses which bloom but once a year—possibly twice, can be rooted in the same way, by taking a blooming branch, as above. Or, the cuttings may be made in the fall, and will get well rooted by spring; but the young plants must remain where they are until another year.

Many blooming shrubs can be propagated in the same way, hard-wooded plants, or soft-wooded; one can increase their stock abundantly. Many of these can be grown from seed, but where the cuttings can be had, results will be quicker than to wait for the seedlings.

Written for THE RURAL WORLD.

LETTER FROM DIXON, ILL.

My dear sister readers of home circle, I do hope you are all well and happy and ready for spring work. What beautiful spring days and how welcome they are, even if they are windy; it is drying up our country roads fine; there was a storm through the southern part of Illinois which we don't care to see repeated. Of course it could have been lots worse, but it was bad enough for a beginner. Well, sisters, did you see the ad about aprons and dusting caps; that is a pretty good chance to get the two articles, as lots of us don't have time to make them. Then it is a chance to help a sister reader. I know her. She is a hard working farmer's wife. She never goes anywhere much, but she takes this way of helping. I would indeed be so glad if every reader of the RURAL WORLD would buy just one apron and one cap. How thankful she would be. It would, indeed, be her bread cast upon the water which would return to her after many days. Let us see what the RURAL WORLD readers can do. I know the aprons will be large and good and I know the caps will be nice for I have seen some of the same kind. If any other reader has anything to write about I am always looking for farmers' wives' letters, let us hear from them. I think it does good to hear from one another well I will wait to hear from others through the columns of our dear old RURAL WORLD.

CEREALS HEALTHFUL AT BREAKFAST.

By all means serve cereals for breakfast. It is an absurdity, however, when the markets are full of all kinds of cereals, to go on using the same thing day after day, until the members of the family push their dishes of porridge away scarcely tasted. Buy several kinds, and use them in turn, today wheat in some form, tomorrow cornmeal, the next day oats, or rice, or farin, or hominy, and so on. Unless one prefers the prepared cereals, long cooking is essential.

It is best to cook fowl for chicken salad the day before it is used.

A MUSICAL EPISODE.

Mrs. M. H. Menaugh.

Both are memories now—one is located where sound is said to ever exist in all its beauty, or hideousness, the other has been torn down to make clear the way of mammon. It is of an outburst of music, I speak, and of a dark old office building. It happened at twilight a few years ago. I was occupying a back room on the second floor of a structure, along whose narrow halls and steps genius had often grouped its way, from Welmar down to Chase and Field; at that time I was not over-busy; ducats, dubloons, and simoleons were not pouring in upon my modest domain. I spent more time looking out at a smoky sky or dull courtyard than I did traveling the Via Sacra that led to fame and fortune. But one twilight, when I was alternating between the fatigue of idleness and the wholesome dreariness of several hours' steady endeavor, I was awakened to real life, and then sent away, on pinions of fancy and inspiration, by an outburst of music in the front office, where a modest, slender young professor conducted a school of dancing. We used to bow when we met on the staircase, or in the hall. I experienced a gentle sympathy for his almost hopeless round of life, knowing Terpsichore was as difficult of wooing in his case as was his sister muse in my own. The gentle nine knew of that old office building, though—Calliope and Euterpe must have flitted from the sacred grove and came there that dusky hour. Practical people would say a congenial spirit had dropped, mandolin laden, and the two boys practiced together. I looked in at them as I went by, tears in my eyes and a stumble in my tread. The door was open and they were then sitting side by side, in the dusk, their chairs tilted against the wall, their fingers silent on the erstwhile eloquent wires.

They had believed themselves alone, perhaps, or had not paused to consider whether they were or not. No word had been spoken, only by an unexplained movement had the two players started upon the same strain, playing in perfect time with a world of pathos, tenderness, noble steadfastness and soul harmonies in every touch. Both were world weary, no doubt, young as they were—no way could they voice regret, heart hunger or kindred sorrows but by the wounding, yet healing touch of music, and so they played, wholly absorbed, seemingly lost to everything around them, and the listening woman, too, forgot her bleak surroundings, her bare exchequer; she dreamed of waving grass and a lark's flight; of bursting buds and vernal bloom; of imprisoned streams bursting from grasp of chill and gloom and purling over mossy logs and fallen fern; of cathedral aisles and waving banners; of knight and morler and shield; of lady and snowy palfrey and cloth of gold; of daisy and mountain pink; of forest gloom and meadow level; of crystalline morning star, and Venus in evening guise, smiling in Western skies.

Oh, she dreamed and dreamed and the sublime strains went on; it might have been a "lost chord" the boys were playing; perhaps they had never performed that melody before, never would awaken it again, were partly unconscious and came back to their surroundings with a start; but undefined voices of the soul then had speech and definition, one lived and loved and dared. Life was all light and nectar and fragrance, and palm, palmetto and flowering shrub waved against the blue of an unclouded sky. Courage again grided on armor, and hope smiled at her recent tears. It was a Spanish melody, seemingly, and all the passion, ardor and affection of a Southern race sang in the mandolin, of kisses in the moonlight, and vows of undying affection. Yes, one lived

and loved, and hoped; there was a lifting of the veil, an insight into realms where art survives and the heart triumphs, of guerdons won, and guidons followed, of victor's meed, and conqueror's ermine, of peace and sunlit isles, and goblets of longed-for distillations held to the lips. It was a gift from the gods, coming at the gods' own hour. It fell on my heart as some mesmeric balm.

Written for THE RURAL WORLD.

THE PUBLIC SCHOOLS IN RURAL DISTRICTS.

By A. Scharick.

It is my opinion that, as long as the mass of the people are kept in artificial ignorance injustice will prevail. Therefore the most important thing to do is to educate the growing generation. This is generally understood nowadays. It also is understood that each and every one must help to maintain this education whether he has children or not. So it means, that educating the growing generation is carried on by a united force of all the people. That this social undertaking should be maintained for the best possible results, with the least possible expense should also be understood.

The public schools in rural districts, as far as I'm able to observe, cost too much, render too much hardship upon children and parents and are totally insufficient to produce results that could be accomplished with the energy invested in it. The schools in my county cost about \$90,000 and the maintaining \$88,000 for a season of six months, \$9 per child every month.

An institution in the county north of here charges \$17 month. There the board, lodging, care and educating is furnished. No hardship for children to travel in cold, stormy weather for miles, nor have the parents got to suffer hardship and losing time to haul children forth and back to school. It also cost money to support the children for living at home, so if everything is considered, the cost of educating the children in a public institution where everything would be furnished—board, lodging, care and education, would be a whole lot cheaper and the results of such a system would be tremendously increased against the system of today. The most illiterate are found in rural districts. Also are the most days' losing of attending schools reported from rural districts. In Paris, France, the cost of feeding the children according to nature's wants is three cents a meal.

The high cost of living has developed there as here, but through the eliminating of all waste the scientific management of this public institution has brought out the fact that this would be the best system that could be devised to educate the children. Environment makes the people. If our children were educated in such a plant conducted by good hearted people, study in an environment adopted for the best possible education, with scientific care of their health, during a season of at least 10 months and to their age of 18 this would certainly be a tremendous improvement of human nature which is needed very bad. Of course it would take a pile of money, but if we understand that society owes the growing generation education I don't see why we, or society, does not owe the children a development of their body as well as their brain.

By such an undertaking we could abolish child labor and would raise good and healthy people with a development that would give them a chance to improve the country to an extent that we could not dream of today. Of course that cost money that must be raised through taxes. But if we can afford to spend hundreds of millions every year for the army and navy, or better, for destruction purposes to my notion a total waste, we will be able

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to raise the money to support all the children. Also if we can dig up the means upon which many of the people live in refined luxury without a tap of useful doing I would say to cut this out and spend it in educating and supporting the children. Surely children deserve this support a whole lot more than the able-bodied grown person. This can be done by abolishing the percent profit system and only by it.

YE OLDEN TIMES.

Editor RURAL WORLD: In a former letter I incidentally mentioned the name of a family who resided near where I was born and raised and where I lived 25 years. These good people were known by the name of Hoff, and they were perhaps the most substantial and also the wealthiest farmers in all that region of country. I never knew much about the ancestors of the Hoff's, but they must have been large landed proprietors in their day, as the elder Hoff whose first name was Abel, had most of his children as well as his grandchildren located on extensive farms, in the early '40s, at the period of my first recollection. The buildings at Elmwood farm, the home of the Hoff's, were of most substantial character. The old mansion house at the time when I was a small boy, must have withstood the storms and tempests of at least a century and a quarter, but the barn was a structure of more recent date. Early in the last century there had been a moderate sized frame barn on the place, which was destroyed by fire one night and on this night my father was returning from town at a late hour, amid a violent snowstorm, and as the tempest raged, loud thunder was heard, and as he neared home a sheet of flame suddenly burst from the roof of the building just after a peal of thunder struck his ear. The Hoff's were then middle aged, and strong and rugged, and with their own hands they went to work and hauled a large amount of rock for the erection of a stone barn of a size sufficient to hold all of the wheat, oats, rye and hay raised on their large farm.

In the basement of this bank barn there was room for quite a drove of cattle as well as horses. In haying and harvesting the width of the second floor was sufficient to take in the hay wagon with four horses to it. Between the house and barn for a distance of more than 100 yards there were numerous outbuildings, some of them of large size, so that the place had the appearance of a small village. A small stream of water flowing from a mountain spring, meandered through the meadow and yard near the house. Where the creek crossed the public road near the house, a small grove of large spreading sycamore, elm, willow and other trees were clumped together, making a cool, shady place on a hot summer day, so that the weary traveler could halt and refresh himself and team in this delightful spot.

This charming old homestead con-

tained some 300 or 400 acres, and that was thought to be a very large farm in the eastern states. The farm extended from the Delaware river east to the top of the Marble Ridge mountain, a distance of a mile and a half, likely. The land was gently undulating except some 50 acres of the east end, which extended up the mountain side and was covered with tall timber of fine quality. The most of this slope was not too steep for cultivation.

I intended when I commenced this letter to speak mainly of the inmates of the old stone mansion on the Elmwood farm, as they ranked among the most prominent citizens of the country. Although the Hoff's were wealthy, yet they were not the least bit aristocratic. They had the good sense to associate with rich and poor alike, and were no respecters of persons. They were among our best neighbors and were clever and generous to a fault almost, yet they were hard workers, but it seemed like they enjoyed a life of unceasing toil, yet apparently they had but little desire for the acquisition of any more wealth. These old time farmers kept three or four hired hands the year around, and farmers of the present day can learn much as to the treatment that should be given to their hands by studying the methods of these old agriculturists who never kept their men in the field until sunset and then had them do chores an hour or two at the barn. The Hoff's had but little trouble to get good hands, and a hand would sometimes stay with them for years. I remember one trusty hand who hired out to them many years before I was born, and who lived on the place until he died of old age, when he was nearly 90 years old, but of course he did not work during the latter years of his long life. In my next letter I will probably have much to say about this man that will be both interesting and amusing.

The Hoff's who resided at Elmwood Hall were somewhat eccentric in some ways, and one of their peculiarities of character was that they considered it an almost unpardonable fault to be unable or unwilling to work hard. Their mother who had been very industrious all of her long life, became much dissatisfied as old age approached, and she could no longer take care of her household affairs, and a sad event occurred. At the close of a bright summer day, in a fit of the blues she wandered off to the edge of the forest a quarter of a mile away, unobserved, and as twilight obscured the vision she mounted the worm fence, and tied her handkerchief to the limb of a tree, the other end being tied around her neck, and in this condition she sprang from the fence, and was soon in the spirit land. All night, friends and relatives with torches in their hands, searched every nook and corner, far and near, but could find no trace of her, and the following day became somewhat advanced before the body was discovered.

More anon upon the subject.

J. M. MILLER.

CLEANING BURNT PANS.

To clean a badly burnt pan, of granite or other ware, put into it a teaspoonful or two of baking soda, fill with water, cover it, and let it boil for half an hour. The burnt stuff will flake off, leaving the pan clean and wholly uninjured.

Thin dainty dress materials make unusual curtains. Dainty flowered cotton crepes, for instance, make charming bedroom curtains.

Written for THE RURAL WORLD. SUNSHINE.

By Albert E. Vassar.

We love to see the day when skies are clear

And sun's smiling sweetly o'er the way,

And we like to see it when the atmosphere

Is pure and sweet to make a lovely day.

We love to see a face that's full of cheer

Which sets our hearts rejoicing right away;

And such will make this life a lovely sphere

When all the year is just as bright as May.

St. Louis.

THE IMPORTANT LITTLE THINGS.

The professional chef understands that there are other seasonings besides salt and pepper. He flavors with parsley, chives, tarragon and a half dozen other things perfectly easy of access to anybody who can grow a kitchen window-boxful of green herbs, the use of which gives variety and delicacy of flavor. The sprig of parsley or watercress around the

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chops, the leaf of lettuce under the vegetable salad, and similar things for which we pay at a high rate when we dine out, would cost us in our own homes a fraction of the sum if we choose to study the art of serving.

PATTERNS FOR RURAL WORLD READERS.

9215. Lady's Dressing Sack.

Cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 2½ yards of 40-inch material for a 36-inch size.

9500. Lady's Waist With Chemisette.

Cut in 5 sizes: 34, 36, 38, 40 and 42 inches bust measure. It requires 2½ yards of 36-inch material for a 36-inch size.

9529. Girl's Dress.

Cut in 4 sizes: 4, 6, 8 and 10 years. It requires 2½ yards of 44-inch material for a 6-year size.

9522. Girl's Dress.

Cut in 4 sizes: 4, 6, 8 and 10 years. It requires 3½ yards of 40-inch material for an 8-year size.

9524. Dress for Misses and Small Women.

Cut in 5 sizes: 14, 15, 16, 17 and 18 years. It requires 5½ yards of 44-inch material for an 18-year size.

9521. Lady's Night Dress.

Cut in 3 sizes: Small, medium, and large. It requires 5½ yards of 36-inch material for the medium size.

9541-9497. Lady's Coat Suit.

Coat 9541, cut in 5 sizes: 34, 36, 38, 40 and 42 inches bust measure. Skirt 9497, cut in 5 sizes: 22, 24, 26, 28 and 30 inches waist measure. It requires 6 yards of 44-inch material for the entire suit in a 36-inch size. This calls for two separate patterns, 10c for each.

9523. Lady's Dress.

Cut in 6 sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 6 yards of 36-inch material for a 36-inch size.

Pattern No. Size Years

Bust .. in. Waist .. in.

Name

Address

RURAL WORLD readers should note that in ordering patterns for waist, give bust measure only; for skirts, give waist measure only. For children give age only, while for patterns of aprons say large, small or medium.





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Cattle

ABOUT SELLING LIVE STOCK.

There is a buyer somewhere who is just as anxious to pay a fair market value for your surplus animals as its owner is to sell. There is probably no other one thing as much needed in the livestock business as salesmanship. One frequently hears a breeder say that he cannot expect to get the big prices that some other individual is receiving. The reason that this individual is complaining is because he has not let the prospective purchaser know that he has animals for sale. A few breeders expect to find, without spending any money, someone within their acquaintance that will purchase their stock. A little study and experience with advertising frequently proves its value, especially if the advertisement is properly prepared and placed in a publication that reaches the buyers in that particular line. Look through this paper and see what attractions the different advertisements have. Advertising has made more men wealthy than the same expenditures made in any other direction.

Among farmers and breeders there is usually someone in the family that writes a plain hand who would enjoy answering correspondence. With a little instruction a boy or young lady who has a good memory can take up typewriting and shorthand if the correspondence is heavy, and can be taught to answer inquiries. This is not only a benefit to the advertiser but a good training for the member who does the writing. A little responsibility is a good thing for any young person.

Some breeders change their advertisements each issue. Others place much value on some particular feature that can be kept always in their advertisements; others display a particular herd header; some run a large advertisement occasionally; others keep a small advertisement in their favorite publication the entire year. From a study of the results of advertising we believe that those who have carried their advertisement the year around, always with some distinctive feature, but with an occasional change so that it will be up to date and attract at all times, are the most successful.—American Breeder.

IF YOU WANT TO BUY, SELL, EXCHANGE

In the line of Breeding Animals, Seeds, Nursery Stock, Eggs and Poultry, Machinery, Implements or other commodities and Real Estate, or if you are in need of work or require help of any kind

**YOU CAN GET IN TOUCH WITH THE
OTHER FELLOW THROUGH RURAL
WORLD WANT ADS.**

You can tell your story at a very low cost, as the rate is but **ONE CENT PER WORD** per insertion, the name and address to be counted as part of the advertisement. Each initial or a number counts as one word. Cash must accompany each order.

Everybody reads the Want Advertising Department. If you use this department to bring your wants to the attention of our readers, surely you will find someone who can satisfy them, and it costs so little.

USE THIS ORDER BLANK
And Send It With Copy for Ad. To-day.
COLMAN'S RURAL WORLD,
321 Holland Bldg., St. Louis, Mo.

.....1913

Inclosed please find \$.....for which
insert my.....word advertisement (at
1 cent a word) as written on the sheet
attached, in your WANT DEPARTMENT
of COLMAN'S RURAL WORLD, same to
appear for.....weeks, starting with
your earliest possible issue.

Name.....

Postoffice.....

The Dairy

POOR MILK FROM CITY COWS.

Within the city limits of St. Louis are 179 dairies keeping cows, compared to 350 ten years ago and about 12,000 gallons milk and 800 gallons cream are produced daily. The cows are stabled from fall until spring, and in a few cases throughout the year. Small lots and pastures are provided for most of the herds in summer. A few barns are of brick and in good condition, but the majority are frame and in most cases in poor condition, badly run down, poorly constructed, narrow, with low ceiling and very poorly lighted. Practically no attention is given to ventilation. Board floors are used almost exclusively and because of long service, many bad places are to be found. All the cows are tied with ropes. There are no stanchions in use, although about 6,000 cows are kept during the winter.

City Cows Fed Cheap By-Products.

Most dairymen feed a slop of malt, bran and hominy meal. Some old bread is soaked up and fed, also some molasses, a by-product of vinegar manufacture.

Most of the city dairies have a milk house, yet they are not well kept up. Recently, however, many have been screened and concrete floors laid. Most of the manure from the city dairies, \$125,000 worth yearly is washed down the sewers.

Most of the city cows are kept in the herd for only six months or a year but some are kept two years. The average cow weighs about 300 pounds more than when bought and the larger dairymen may make money on the transaction, but the smaller fellows, who cannot buy as cheaply, usually lose. Very few city dairymen can tell what it costs to feed a cow but the state inspector found it cost 28 to 35 cents per day.—E. A. Ikenberry.

MILK AND CREAM.

Most farms are now supplied with small separators, and this work is done at home. Instead of, as formerly, one creamery or station doing the work for twenty-five to one hundred dairies, it is all done separately. As will be seen it will require some knowledge and considerable care to do this work properly and obtain the greatest uniformity in results. This is of much importance, and every dairymen should endeavor to become master of the business and do his part in the best manner.

On some farms the milk is separated in the barn or stable. Where this is the case, there should be a suitable room where the work can be well done and the milk and cream kept free from taint of any kind.

The separating should be done as quickly as possible and then the cream carried to a place where it can be properly cared for. Neither milk nor cream should be left in the stable in cans. The idea should be to avoid as far as possible all stable odors.

And another thing that should not be forgotten is that the cream should be churned at least twice a week in the winter, either on the farm or at the creamery, for best results.

Everyone who has fed corn fodder from the wagon to cows in the open pasture in the fall months has been annoyed with their continual restlessness. They run after every team that comes near the pasture with the expectation of getting more corn. As soon as corn feeding begins they seem to care nothing for grass or anything else. One of our subscribers says that he has overcome this annoyance by feeding the cows their fodder in the barn. Another good dairymen always hauls the fodder into the pasture before the cows are turned out.

NOTES FROM AN OHIO FARM.

Sometimes I wonder if our readers, or the new ones at least, have a kind of an idea that the Farm Notes Man is a dressed up chap, who sits in an office and writes his Notes out of an Encyclopedia of Agriculture.

Just at the present time he would make an elegant picture of Mr. Weary Willie, the hobo prince, as he has been so busy for the past week that he did not find out that he was so awfully ragged, that until a neighbor told him that if the Constable caught him out on the road he would be arrested for appearing in such scanty and disreputable clothing.

Tobacco beds, oats sowing, taking potatoes out of the pits and planting a patch for early use, pruning the young orchard, tearing down a fence and getting ready for a new one, husking some corn, shelling, sacking and crating seed corn for shipment, cutting stalks, burning trash, fixing some washes, getting ready for garden making, taking out grubs, cutting briars, moving some stone, helping a neighbor doctor a crippled horse, and, as the sale bills have it, other jobs "too numerous to mention."

I do not do any team work, that is, with double team, but I sometimes help with corn cultivation a few days, although the walking gets away with me, and I tell the boys that if they will bring the work to me, so that I would not have to walk after it, that I could do as much as I ever could.

We are away ahead of the season this spring, as all tobacco beds were made and oats sowed by the 23rd of March, and last year we were at such work April 10.

So far fruit buds are safe, but peaches are coming in bloom and a late frost would kill them all. Last April I set four young peach trees, and the same day a neighbor set four, out of the same lot of trees. Mine made of growth of fully four feet, as they were well cultivated, and there was no sign of fruit buds, but neighbors, that were set in the grass and the weeds cut twice during the summer, made about eight inches growth, and he reports them full of fruit buds.

My young apple trees, set last April, fifty of them, all grew but two, and I thought they would die when I was setting them, and these apple trees made from eight inches to four and a half feet growth, according to variety, as good growth as I ever saw. I pruned them back nearly half, and if I am able to attend to them at the proper times the coming summer, I will have a fine looking young orchard next fall.

The strawberries came through the winter in fine shape. We did not get quite all of them mulched with the potato vines, but I cannot see that the winter hurt these any more than it did the mulched part, and we are going to work this section of the patch well before we apply the straw, which is to protect the berries from getting dirty.

It was our intention to plant 1000 more strawberry plants this spring, but we have concluded to only plant one row of 250, and after fruiting, work out the old patch, as we kept it perfectly clean and can work it out easily. Our plan will be to take a light one-horse turning plow and cut the old rows down to about three inches wide, then thoroughly cultivate the middles, applying a 2-6-6 fertilizer heavily, then chop the rows down to small blocks of plants, say 3x3 inches, 18 inches apart. When the runners start, we will try to keep them in to an 18-inch matted row as near as we can, then grow a crop in 1914.

Really, I do not know what we will do with the berries if there is a big crop, as we did not plant for market, and my friend Prof. Lloyd, from

EDISON HOTEL

(European)
107 NORTH 15th ST., ST. LOUIS, MO.
(One block from Union Station)
Caters to Stockmen, Shippers and Country Merchants; makes a special rate of 50c, 75c, \$1.00 per day. Give us a trial.

the experiment station, says that with a good season we may expect sixty bushels.

March 28. Heavy rains and great damages all along the big streams. Clearing and colder.

C. D. LYON.

SOIL BUILDING.

Editor RURAL WORLD: Mr. E. B. Taylor in RURAL WORLD March 13th, says: Our farm is rolling limestone clay loam, some of it is steep enough to wash, and by this continual washing and cultivation you have got down to the clay.

This is the most difficult task a tiller of the soil ever undertakes, to create a soil, for that's what you will have to do.

The soil is washed away. Some other person further down the stream has your soil. I experienced the same difficulty back on my father's old farm in Missouri. A covering of manure and some of the chemical fertilizers will help you out for a crop or so, but you must make a soil. Stack your straw upon these spots and make a feed lot upon them, feed on it till you have built a soil, then grow clover on it for two or three years.

This is a slow process, but the only way to make new soil. You state you have 120 acres. If you farm one-fourth of this each year, intensively, letting the other three-fourths to pasture or rest. By the time you get to the last quarter it will have had sufficient rest to pay you for waiting.

It looks like enterprise to keep stirring broad acres, but you would better be spending time and energy in good patient waiting for your soil to build and rest. GOOSE QUILL.

NOTES FROM AN ILLINOIS FARM.

Editor RURAL WORLD: Any time for the last four weeks would have been a good time to vote a tax for hard roads. I think the measure would have carried. To one who was born on a turnpike, these roads are abominable.

We have been experimenting a little with the King drag, though it has really passed the experimental stage.

We have been plowing at intervals for some time, and had to go along the highway for about 100 rods to reach the field. As it took but a minute to change from drag to plow, we have dragged that 100 rods more than a dozen times and now most of it does not get bad, no matter how hard it rains or freezes, and one day's sun makes it dry.

A great many will not drag until it is dry, and while this makes it smoother, yet it does little toward puddling and rendering it impervious to water.

Since writing above, the sun has "crossed the line," and while we suffered no real damage, we had high wind that uncovered twenty tons of hay that is stacked out. Not a bushel of oats sown to date, March 24th, and more than three inches of rain within the last few days, so there will be few sown in March.

Some clover that was sown in February came up, and it is thought that it is killed by two pretty hard freezes. We are waiting till it is dry enough to harrow our wheat, when we sow our clover. We also want to sow some oats.

We have been writing, dragging

road and choring between showers today. It has rained at least two inches today and is still raining.

March 24. AGRICOLA.

SOME HAY TALK.

By C. D. Lyon.

It is very common for farm press writers and farmers' institute speakers, in discussing the growing of timothy hay to treat of it as being a crop that is so exhaustive of soil fertility that its growing should be restricted to any but the very strongest soils, and while this is in a way correct, we cannot help feeling that a good part of the prejudice against timothy comes from the well-known fact that its food value is low, when compared with some other hays, especially those made from the legumes.

Be this as it may, liverymen, race horse trainers, and other handlers of light horses, demand pure timothy hay and will pay good prices to get it, prices so high in fact that it has come to be recognized a profitable farm crop, even by those who fully recognize its heavy demands upon the soil for readily available plant food.

Clark, the famous New Jersey hay man, on land which was originally very low in fertility, made hay growing profitable by thoroughly fitting the soil for the crop, and depending upon commercial manures, applied very heavily, to make the crop pay upon high priced land with the high-priced labor, and he has made it very profitable.

It takes 48 pounds of nitrogen, 20 pounds of phosphoric acid and 36 pounds of potash to grow a crop of two tons per acre of timothy hay, and the actual cost of this amount of plant food, if bought in any market today, would be just about \$12, or \$6 per ton of hay, so it may be said that the difference between the selling price of hay per ton, and \$6 is the profit on the crop, less the labor.

With No. 1 timothy hay worth around \$13 per ton, this leaves a fair margin of profit to the grower, even though he go into the market for all the plant food needed to grow it, but when grown in a rotation with other crops in which clover has a place to furnish the nitrogen, the application of phosphoric acid and potash, and these in moderate quantity, is all that is necessary.

If we take 100 pounds of 14 per cent acid phosphate and add to it 50 pounds of muriate of potash, broadcasting this amount on each acre of our meadow in April, harrowing it in, we will have provided for these two elements of plant food, fully up to the requirements of an average hay crop.

The annual cost of such an application is small, and by adopting this plan we will hear less about the exhaustion of soil from hay growing.

CURIOSITIES OF NATURE.

Editor RURAL WORLD: Everyone knows that neither sheep nor cows have teeth in the upper jaw, but do you know that the grasshopper carries his teeth in his stomach, while the turtle and terrapin have none at all?

The eye of the owl never moves, but is fixed, and when it moves, its eye must move all its head at once. The eye of a rabbit and a fish never closes, for they have no eyelids, while the horse has no eyebrows. The crocodile devours all birds but one, the zic-zac, which enters its open jaws and eats the leeches that gather there and annoy the reptile, a feathered tooth-pick, as it were. C. E. DAVIS.

BOONE CO. WHITE, JOHNSON CO. WHITE, R. Y. Dent and Leaming crated, \$2.50. Shelled, \$2.00. Stored and dried in a modern seed house and thoroughly tested. Shipped on approval. Regenerated Swedish Select Oats. Catalogue free. OAKLAWN SEED FARM, Chatham, Ills.

THE KANSAS CO-OPERATORS' LAW.

Editor RURAL WORLD: Every co-operator rejoices with the Kansas farmers over the co-operators' law recently enacted by the Kansas Legislature, and which goes into immediate effect for the benefit of the many Equity Exchanges we are organizing in the State of Kansas. Under this law every by-law of the Equity Union can be legally carried out and enforced.

Note the Equity principles in this new law: 1. Each stockholder has only one vote. 2. All profits over a certain per cent shall be prorated back to stockholders according to patronage. 3. The right to recall directors. 4. The right to limit the number of shares or the amount of capital held by each member. 5. The manner of becoming a member. 6. All farmers' elevators can file a written declaration with the secretary of state that a majority of its stockholders have voted to accept the benefits of this act and then become a co-operative company indeed, and in truth. 7. No company can use the title "Co-operative" unless it has complied with the provisions of this act. This will do away with the so-called co-operative companies which are only capitalistic concerns.

Here is the law. Read it and save this paper:

Senate Bill No. 629.

AN ACT authorizing the incorporation of co-operative associations, companies, exchanges, societies or unions defining their powers and the regulations thereof.

Be it enacted by the Legislature of the State of Kansas:

Section 1. Any number of persons, not less than twenty, who are citizens of the state of Kansas, may associate themselves together as a co-operative corporation for the purpose of conducting any agricultural, dairy, mercantile, mining, manufacturing, or mechanical business on the co-operative plan. The title of such corporation shall begin with "The" and end with "Association," "Company," "Corporation," "Exchange," "Society," or "Union." For the purpose of this act the "Co-operative Plan" shall be construed to mean a business concern that distributes the net profits of its business by: First, the payment of a fixed dividend upon its stock; second, the remainder of its profits are prorated to its several stockholders upon their purchases from or sales to said concern or both such purchases and sales.

Sec. 2. They shall sign and acknowledge written articles of incorporation which shall contain: The name of corporation; the names and residences of the persons forming the same; the purpose of the organization; the principal place of business; the amount of capital stock; the number of shares and the par value of each share; the number of directors and the names of those selected for the first term; the time for which the corporation is to continue, not to exceed fifty years.

Sec. 3. The original articles of incorporation or a certified copy of the same shall be filed with the secretary of state who shall return to the corporation a certified copy of the same, with the date of filing and attested with the seal of his office, upon the approval of the Charter Board.

Sec. 4. For filing the articles of incorporations and amendments there to under this act the same fees shall be paid to the secretary of state as is now required under the general corporation law.

Sec. 5. No corporation organized under the provisions of this act shall

commence business until at least twenty per cent of its capital stock has been paid for in actual cash, and a sworn statement to that effect has been filed with the secretary of state, and his receipt for the same shall be construed as a permit to do business.

Sec. 6. Every such association shall be managed by a board of not less than five directors. The directors shall be elected by and from the stockholders of the association at such times and for such term of office as the by-laws may prescribe, and shall hold office for time for which elected and until their successors are elected and shall enter upon the discharge of their duties; but a majority of the stockholders shall have power at any regular or special stockholders meeting legally called, to remove any director or official for cause, and fill the vacancy, and thereupon the directors so removed shall cease to be a director of said association. The officers of every such association shall be: a president, one or more vice-presidents, a secretary, and a treasurer, who shall be elected annually by the directors, and each of said officers must be a director of the association. The office of secretary and treasurer may be combined, the person filling the office shall be secretary-treasurer.

Sec. 7. No person shall be allowed to own or have any interest in more than ten per cent of the capital stock of such corporation. Each member shall be entitled to one and only one vote for each director to be elected.

Sec. 8. Each corporation shall formulate by-laws prescribing the duties of the directors and officials; the manner of distributing the profits of its business; the manner of becoming a member, and such other rules and instructions to its officials and members as will tend to make the corporation an effective business organization.

Sec. 9. Each corporation organized under the provisions of this act shall make an annual report to the secretary of state the same as is required of other corporations; provided such co-operative corporation shall be required to report the names of its stockholders and amount of stock owned by each for such years only as may be required by the secretary of state.

Sec. 10. All co-operative corporations, companies, or associations heretofore organized and doing business under prior statutes, or which have attempted to so organize and do business, shall have the benefit of all of the provisions of this act, and be bound thereby on paying the fees provided for in this act and filing with the secretary of state, a written declaration signed and sworn to by the president and secretary to the effect that said co-operative company or association has by a majority vote of its stockholders decided to accept the benefits of and be bound by the provisions of this act. No association organized under this act shall be required to do or perform anything not specifically required herein, in order to become a corporation, or to continue its business as such.

Sec. 11. No corporation, association or company now or hereafter organized or doing business for profit in this state shall be entitled to use the title "Co-operative" as part of its corporate or other business name or title, unless it has complied with the provisions of this act; and any corporations, association or company violating the provisions of this section may be enjoined from doing business under such name at the instance of any stockholder of any association legally organized hereunder.

Sec. 12. This act shall take effect and be in force and from and after its publication in the official state paper. I hereby certify that the above Bill

I STOPPED MY CATARRH OVER NIGHT

I Will Gladly Tell You How—FREE

HEALS 24 HOURS

It is a new way. It is something absolutely different. No lotions, sprays or sickly smelling salves or creams. No atomizer, or any apparatus of any kind. Nothing to smoke or inhale. No steaming, or rubbing or injections. No electricity or vibration or massage. No powder; no plasters; no keeping in the house. Nothing of that kind at all. Something new and different—something delightful and healthful—something instantly successful. You do not have to wait, and linger, and pay out a lot of money. You can stop it over night—and I will gladly tell you how—FREE. I am not a



doctor and this is not a so-called doctor's prescription—but I am cured, and my friends are cured, and you can be cured. Your suffering will stop at once like magic.

I AM FREE—YOU CAN BE FREE

My catarrh was filthy and loathsome. It made me ill. It dulled my mind. It undermined my health and was weakening my will. The hawking, coughing, spitting made me obnoxious to all, and my foul breath and disgusting habits made even my loved ones avoid me secretly. My delight in life was dulled and my faculties impaired. I knew that in time it would bring me to an untimely grave because every moment of the day and night it was slowly yet surely sapping my vitality.

But I found a cure, and I am ready to tell you about it FREE. Write me promptly.

RISK JUST ONE CENT

Send no money. Just your name and address on a postal card. Say: "Dear Sam Katz, Please tell me how you cured your catarrh and how I can cure mine." That's all you need to say. I will understand, and I will write to you with complete information, FREE, at once. Do not delay. Send the postal card or write me a letter today. Don't think of turning this page until you have asked for this wonderful treatment that can do for you what it has done for me.

SAM KATZ, Suite 1370,
1325 Michigan Ave. Chicago, Ill.

originated in the Senate, and passed that body February 25th, 1912.

Adopted Conference Report March 10th, 1913.

JOUETT SHOUSE,
President Pro Tem. of the Senate.
BURT E. BROWN,
Secretary of the Senate.
Passed the House March 7, 1913.
Adopted Conference Report March 10th, 1913.

W. L. BROWN,
Speaker of the House.
A. A. DUNMIRE,
Asst. Chief Clerk of the House.
Approved March 17, 1913.
GEO. H. HODGES,
Governor.
State of Kansas.

Office of the Secretary of State,
I, CHAS. H. SESSIONS, Secretary of State of the State of Kansas, do hereby certify that the above and foregoing is a correct copy of the original enrolled bill now on file in my office.

IN TESTIMONY WHEREOF, I have hereunto subscribed my (Seal.) name and affixed my official seal, this 18th day of March, 1913.

CHAS. H. SESSIONS,
Secretary of State.

She (Saturday night at the house party)—Do you like to dance?

He (wearily)—Yes, but not on my week ends.

She (sympathetically)—Try ankle supporters.

FARMERS' EQUITY UNION

NATIONAL HEADQUARTERS GREENVILLE, ILLINOIS

NATIONAL OFFICERS

Pres.—C. O. Drayton, Greenville, Ill.
Vice-Pres.—L. F. Hoffman, Mott, N. D.
Sec'y—Miss Inez Blacet, Greenville, Ill.

Official Paper—
COLMAN'S RURAL WORLD.

BOARD OF DIRECTORS.

1. C. O. Drayton, Greenville, Ill.
2. L. F. Hoffman, Mott, N. D.
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7. R. L. Cook, Guymon, Okla.
8. Charles Kraft, Odessa, Minn.

Our Slogan: "Farmers Must Be Co-operators"

CO-OPERATION IN DENMARK.

Editor RURAL WORLD: John F. Sinclair of the Danish-American Association in an address in Chicago said: "The fruits of co-operation are shown by the fact that eighty-nine families out of every hundred in Denmark own their own farms and houses. And just note, if you will, the size of these farms on which men are prospering by co-operative effort. The 240,000 farms in Denmark average only a little over forty acres each. Of this number 68,000 farms contain less than one and one-half acres each; 65,000 farms are from one and one-half to thirteen and one-half acres each. The others range up to one hundred and fifty acres.

And yet more than ninety million dollars' worth of butter, eggs and meats are exported by the farmers of Denmark annually.

In 1906 the Danes had 208 million dollars in savings banks.

Co-operative Creameries.

More than a thousand co-operative creameries handle practically all the milk in the country.

Each member enters into a contract to supply all the products of his herd for a period usually for ten to fifteen years.

The Members Stand Together.

The nation is shipping a million dollars' worth of butter to England every week.

Bacon Factories.

Thirty-four bacon factories with a membership of nearly a hundred thousand farmers, slaughter more than one and one-half million dollars' worth of hogs annually.

Co-operation On Eggs.

A Danish co-operative egg export society has 550 local unions which do a business of over six and one-half million dollars every year. Every farmer stamps each egg he markets and is fined if it is not fresh. Danish eggs bring a fancy price because they are always fresh, well sorted, well packed and guaranteed.

Savings Banks.

Denmark has 536 co-operative savings banks. A farmer can acquire land on a 50-year loan at 4 per cent. A laborer who has one-tenth the purchase price of land can borrow the nine-tenths on that margin of security.

Danish co-operation would not be complete without its system of buying at wholesale. This business conducted through a great central agency, amounted in 1908, to seventeen and one-half million dollars. The commodities handled include seeds, fertilizers, machinery, in fact, every necessity for the operation and upkeep of the farm.

Education Important.

"First in importance is education in that country of agricultural achievement. The University of Copenhagen with the agricultural colleges has an enrollment of thirty thousand. The students learn to regard agriculture not only as a science of production but as a system of distribution.

He finds that the farmers' business may include the marketing of

crops as well as the growing of them and that co-operative marketing is as essential as co-operative production.

The Danes never stop learning. They keep on studying after leaving the agricultural colleges.

Co-operation is constantly elevating the lower classes to a higher plane of economic well being. It has inspired hope and optimism in thousands of peasant hearts. The Danes work together that they may prosper individually.

Richest Nation.

Let us keep in mind that the richest nation in Europe in proportion to population is a co-operative people. Denmark is about one-fourth the size of Wisconsin. Much of it was formerly a bleak waste of sand dunes. Only the eastern portion of the country and the neighboring islands were considered fit for agriculture. In addition to its poverty of natural resources, the country was impoverished by the Napoleonic wars in the early part of the nineteenth century. Practically all of its commerce was gone. The peasant farmers were in a most pitiable condition.

Today Denmark is essentially an agricultural country, the wealthiest in Europe according to population.

Co-operation was the agency which lifted Denmark—co-operative buying.

The Golden Rule principles of the Farmers' Equity Union will lift the American farmers to the same level of efficiency, prosperity and fraternity. Let no Equity Union member sulk in his tent, nor grow discouraged by the way. Let us renew the fight with fresh vigor and new hope for the month of April. Our cause is just and sure to win out.

NATIONAL PRESIDENT.

THE TWINE QUESTION.

Editor RURAL WORLD: So far we have been unable to get cordage companies to quote us prices on twine. There is such a strong organization among twine manufacturers, wholesalers and retailers that there is absolutely no competition among them. They can wait complacently and quietly until the farmers' grain crop for 1913 will be and then put the price "as high as the trade will bear."

They have so much power through combination, that they can force farmers to pay an extortionate price; and they wait till the grain crop "shows up" and then the extortion is in proportion to the victims' ability to pay.

No wonder farmers as a class are held to a bare existence. They are a great mob contending with these powerful combinations and influences.

The National Union is unable to make any satisfactory deal on twine for our Local Unions in 1913.

You can write to the Warden of your state penitentiary at Stillwater, Minn.; Sioux Falls, South Dakota; Bismark, North Dakota; Lansing, Kansas. But you had best lay this paper down and write AT ONCE as their meager supply will soon be exhausted and then you are at the

mercy of the twine trust, and hold-up system.

I do not believe that convict twine ought to be put on the market in competition with honest labor twine.

If the State wants to start "real competition" with the Twine Trust and give us cheaper twine, let each state erect a twine plant, employ honest labor and all the State plants unite in buying fiber, and the Equity Union will distribute direct from factory to farm at actual cost of distribution. Let each state do the same with farm machinery and we will have taken a long step toward contented farmers and cheaper food products for all the people.

Twine is sure to be high in 1913 if we have a good grain crop. Every jobber, wholesaler and retailer will add a little extra profit and talk about the war in Mexico.

The great need of organization among farmers is emphasized every day. We must organize, organize, organize!

One hundred Equity Unions with ten thousand Golden Rule Co-operators will make a demonstration that will unite one million farmers and keep them united.

C. O. DRAYTON.

Greenville, Ill.

WHEAT GROWERS' LOSS.

Editor RURAL WORLD: The wheat growers have lost \$237,225,000 on the wheat crop of 1912.

Six hundred and forty bushels of wheat will be sold by the wheat growers of the 1912 crop. The average price that the grower will receive will be 68 cents. The actual cost of handling wheat in a modern, well patronized elevator is ½ cent per bushel and on the wholesale market ½ cent per bushel. If the grain growers were organized and no scabs among them the one cent actual cost still could be reduced to ½ cent. The average cost of transportation will be 8 cents per bushel. The actual cost of milling in a modern flour mill is 10 cents per bushel but I'll figure 12 cents. The average transportation cost on the finished products is 5 cents per bushel.

The actual cost of handling the finished products is 1 cent per bushel. Summing up, the actual total cost per bushel is 27 cents but I'll say 1 cent more for good measure. So the actual value on the finished product is 96 cents. The average price paid by the consumers is \$1.38 per bushel, but I'll call it only \$1.35. Four hundred fifty million bushels will be consumed at home and the profits made on this wheat will be \$175,500,000. Two hundred million bushels of wheat will be shipped to foreign markets, some finished and the bigger half raw. The average actual cost to place this product on the foreign markets will be 32 cents per bushel and the average actual value of this product on foreign markets will be \$1.00. The average price the speculators will receive for this surplus wheat product will be \$1.25 per bushel, a total profit of \$50,000,000. The total profit that will be made on the 1912 wheat crop of the country will be \$225,500,000. I do not make the claim that these figures are correct, as the sources of my information are not completed, but I am satisfied that the total amount of profit made on the wheat crop is sooner more than less. If the farmers that grow wheat were organized, would handle and finish this wheat crop and kept all the profits made the average price per bushel would be \$1.02 8-10 that they would receive for their wheat. The average cost of production is 58 cents per bushel according to Prof. J. H. Worst

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of the N. Dakota Agricultural College and the value of plant food consumed per bushel is 46½ cents. That brings the total cost of production to \$1.02½. That shows that, if the wheat growers had made all the profits they still had lost \$11,750,000 on their crop. The total amount of loss on the 1912 wheat crop by the farmers is \$237,225,000, according to these figures, 36½ cents per bushel. This all could be saved if the wheat growers were organized, would handle and finish their products and would not sell to lose out would demand a just price for them. The farmer that has sold 2,000 bushels of wheat can say that he has paid hayseed tax to the tune of \$730. Why not get wise and quit paying this hayseed tax? Join the Farmers' Equity Union, all of you, and then it will be only a matter of a short time when the wheat grower will not be compelled to play the losing game.

ADAM SCHARICK.

A NATIONAL ISSUE.

Editor RURAL WORLD: The time has gone by when the farmers of our nation think only of large crops. We have learned to know that the selling end is as all-important as the producing end. We must not only produce all we can, but we must sell right so as to keep our land in a state of high productivity.

It looks pretty good to see President Wilson after the services of Charles S. Barrett for the assistant of the Agricultural Department. Mr. Barrett, who has spent a life time on the selling end and president of the Farmers' Union of the south.

Also we notice the several states that are adding to their agricultural department the selling end also.

All will come right as fast as the farmers of our country demand justice and an equitable return for their labor.

Also the demand from the consumer for direct shipment and marketing of farm crops in the finished form, is a great factor also in hastening a national awakening among the farmers for Equity principles.

There is also a strong move on foot to try to get all farm organizations under one head so there can be more concerted action on a national scope. Farming is too important a business to drag along, and at all times be at the mercy of all other businesses.

I wish to state here that the latter end of March I meet with the executive board of the Federation of Labor and I think they will begin at once to get charters from the state to form exchanges and will place "Exchanges" in different cities to buy direct from "farm and factor" and they hope to have a friendly co-oper-

ation from "The Farmers' Equity Union" which is uppermost in my mind as well as see the consumers have what they should have.

All locals who can sell eggs, poultry, vegetables, fruit, flour, or anything write me or R. E. Woodmansee, Sec'y Federation of Labor, Springfield, Ill. Also I wish to say they will no doubt sell and handle hay, oats, corn, and sell to farmers also, as the Federation of Labor's Exchanges can get in close touch with farmers also at their points, and you will note that the consumers' exchanges will force the farmers around the consumers' exchange to fall in line also. Equity is destined to be a National Union of great power before we are aware.

It would be wise for each local to take up this matter at once and get your secretaries in touch with either Mr. Woodmansee or myself. When writing for information always ask through Colman's RURAL WORLD or in writing enclose a stamp for a reply.

Remember the farmer cannot get along without the consumer, nor can consumer get along without the farmer, but both can get along very nicely without Mr. Middlemen.

Springfield, Ill., and Kansas City, Mo., are the two most advanced cities getting in line for Equity but others will follow when they see success of these two places.

The Federation of Labor, the parent body of all labor bodies, is the largest organization in the world. The laboring men are meeting with great success in co-operation in buying in England, Scotland, Ireland, Germany, Switzerland, Norway and Sweden and other foreign countries and in this country in a limited way. They claim that Equity principles follow very closely the line of business followed other places.

All locals who wish to get in touch with consumer kindly let us know through RURAL WORLD or by letter.

Now we wish to hear from the North, way up in Dakota and Minnesota, as I feel that an order of several car loads of flour from the consumer can certainly be filled by the hard-wheat growers by the farmer and consumer getting so close together with each other's supply and demands.

The consumer is willing to buy your wheat at market price also to pay you HALF of the profit on flour until Mr. Middlemen take to the woods; and when the time comes that we have no middle men prices then all business done on Equity to all.

We are fast learning that to aid others is to aid ourselves.

Let us hear from all locals who wish to begin on Equity business direct to consumer. V. I. WIRT.

Virden, Ill.
P. S.—To the inquiry from Fowler, Kan., I would say, our best demand here for alfalfa hay is from October to January 1st. October and November the best of all months. Alfalfa slow now. V. I. W.

WHY NOT TRY IT?

Editor RURAL WORLD: Late quotations of hens, heavy, 16½¢; light, 16¢, per pound."

Six weeks ago heavy hens sold in country towns at 9 cents, and light at about the same, so we ask the question, why would it not pay those who have plenty of range and plenty of feed, to buy up 1,000 or 2,000 hens, when they are cheap, and hold them for the high prices that always come at this season?

If 50 to 100 head of cattle were on full feed, ten to twenty times as many hens ranging in the feed sheds and lots would gather up waste

enough to maintain or even fatten them, and if the hens had no such a chance, having to be fed marketable grain at market prices, a 3-cent raise between buying and selling price would pay as well or better than steer feeding.

Under favorable conditions, the hens should lay enough eggs during the period of feeding to pay for the feed, leaving as a profit the increase in price and weight.

While though it would seem as good a business proposition to feed hens as to feed hogs or cattle, it has never been tried, and I suggest it to those whose surroundings will permit it. C. S. PARSONS.

Dearborn Co., Ind.

FROM CENTRALIA LOCAL— NOTE CHANGE OF DATE.

Editor RURAL WORLD: Owing to district school elections coming on the first Saturday afternoon in April, Centralia Local, of Farmers' Equity Union, will hold its monthly meeting on Saturday, April 12th, instead of April 5th. All members are requested to take notice. Let every member work for a good meeting. Come in and pay your local dues, and do not let the burden of hall rent and postage fall on a few. Convince your neighbor of the money value of co-operation to himself, and he will come in and join. The success of Equity depends on the efforts of each and every member and not on the work of a few, as some seem to think. Yours for a big meeting April 12th.

O. V. ANDERSON, Secretary.
Centralia, Ill., March 28, 1913.

REO THE FIFTH.

Another prize was won recently for graceful driving at a big eastern carnival by the daughter of a Reo the Fifth owner, this being at least the sixth prize of this kind won by ladies driving Reo the Fifth within the past few months, says R. E. Olds, president of the Reo Motor Car Company.

We receive scores of letters from ladies in every section of the globe testifying to the convenience, simplicity, safety, comfort and efficiency of the Reo left side drive, right hand center control and foot brakes, these features being specially adapted to closed cars or to rainy weather where the top side curtains are used.

One lady who has owned and driven a Reo every day for five consecutive years wrote us yesterday that she finds the use of both fore doors, due to the absence of all outside levers, of great practical convenience to her. Impressed with the simplicity of design of her Reo the Fifth she decided to dispense with the use of a chauffeur and drive the car herself. She gave positive instructions at her garage that no one touch her car and that only the oil recommended by the Reo Company be used. What few adjustments that were necessary to be made on her car during the past year she has made absolutely herself. She has driven her Reo the Fifth every day and reports that it is running as smoothly as on the day she bought it.

Another lady says that she derives much pleasure, comfort and satisfaction in knowing that her Reo the Fifth is dependable which is but another term for power, speed, roadability and safety. Then again a western lady is charmed with her Reo's snap and strength, the latter reducing the depreciation charge to the lowest possible minimum. We eagerly sought to please the ladies when designing the Reo the Fifth and to thus see our painstaking efforts win their hearty and intelligent approval is more than gratifying to us.

We will appreciate your sending in the names and addresses of friends and neighbors for sample copies of this paper.

KENTUCKY NOTES.

Editor RURAL WORLD: We had our last snow and cold last week (this is March 19), today was a very nice spring day. Our "boys" are making tobacco beds. One is planted or sown, rather, together with cabbage, tomatoes and lettuce. We and Co., this means myself and the dear little ones, were sowing a few garden and flower seeds today—our first attempt for the season. Ground worked up as nice as an ashbed. No potatoes planted yet but we are going as fast as possible from one joy to another. Potatoes in the pit yet. We are expecting a little more freezing weather. Potatoes "eating" 85¢ per bu., for seed from \$1 to \$1.60 per bu in store. Eggs were 16¢, turkeys 18¢ per lb. There seems to be more for sale here, however. When we sold ours they were 15¢ per lb.

This is fine plowing weather just now.

We have as yet a few hogs to sell for market. Perhaps we will catch the high prices.

The season is now on for setting sweet clover plants, we urge our friends to try the plant method. We have tested mail shipments. They do very well; also express lots.

We have both the white and yellow plants to offer. Our ad for plants was incomplete for several issues, but trust our friends will see the correct address now added. We would be pleased to have the full address sent us of the friend mentioned in the last issue of RURAL WORLD. The friend in question is the one mentioned in issue of March 13 in the article headed "Restoring Worn Land." Also, the full address is desired of E. B. Taylor of Switzerland Co., Ind. When our soil is in a crumbly condition is a fine time to order inoculating soil to be used either for starting alfalfa or sweet clover.

We believe this method will prove effective. Look for our ad. It will be in the RURAL WORLD all through April and the rest of March. We will be pleased to hear from those who are interested. We believe we can help our friends to success by the plant and soil method. These plants would surprise you; they grow wonderfully fast after they get started. Now is a splendid time to order.

We can help you to a start with sweet clover and you can help us in a commercial way—a friend in need is a friend indeed—then let us be friends to each other. We can both derive a benefit. You that have poor land and which is getting poorer all the time, what is that kind of land worth to you? Why hesitate, when you can start now with plants. These plants have struggled for their existence for the past season. They will grow, and even if in a small way. Why not send us an order? You need not wait to write; we will send you a square deal for whatever amount you wish to invest.

Of course, if you want to write first for particulars, well and good, but, really, friends, you would do well to order plants for a start this spring. If you order express lots we will give you in addition to the plants a nice little lot of the soil to use in setting out your plants. Of course we want you to succeed with the plant if it can at all be made possible. We mean well and hope to have your trade.

More rain is the next on the list as I just heard the patter of the drops fall. We would like a few days without rain just now as our plowing and other work is going on nicely.

Wishing you all a bountiful season with joy and happiness for your lot I am, Yours for soil improvement by sweet clover,

MRS. J. T. MARDIS.

Please mention RURAL WORLD when writing advertisers.

The Business Man Farmer

knows the importance of using proper machinery on the farm. He too, knows the value of feeding out fodder. Proper cutting and filling a silo are as important as the silo itself. The **Dick Blizard Ensilage Cutter** (Patented), is built for endurance and satisfaction-giving. Prospective buyers of Ensilage Cutters should know all about the Blizard. The information is free for the asking. Weber Imp. & Auto Co., 1930 Locust St., St. Louis.

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500-Acre Farm for Sale

all rich level river bottom land, above overflow, and only 5 miles from railroad town; on two public roads and telephone line. There are 200 acres of this in cultivation and balance in timber. There are 10 houses and a store building. People are all white and native Americans; most of them are from Illinois and Missouri.

This property can be bought for \$40 per acre if taken this month; ¼ cash, balance to suit purchaser. I have two smaller farms for sale also.

L. G. CROWLEY,
Black Jack, Ark.

Electric Lights in House and Barn

furnished by Storage Battery, charged with a dynamo run by the little farm engine while pumping, grinding, etc. Anyone can take care of the simple plant. After once installed, practically no expense. Put dynamo by the engine (location immaterial) and battery any other suitable place. No fires or explosions—not even a shock! Clean and safe! Best insurance for your buildings. Loss caused by fire from coal oil lamp or lantern is ten times the cost of a complete Electric Lighting installation. Think and act quick! Literature and estimates free. Let me tell you what a few hundred dollars will do for you.

H. J. WOBUS, Electrical Engineer,
915 Locust St., St. Louis, Mo.
Electric and Water Systems,
Water Wheels and Rams.

TO OUR SUBSCRIBERS.

Now is flood-tide season for both new and renewal subscriptions. Hundreds of farmers are renewing every week, and you, too, certainly will wish to begin 1913 farming operations in the right way, by starting in with your subscription to COLMAN'S RURAL WORLD well paid in advance. The paper will mean very much more to you if you will do this. You'll be gladder to see it every week. And, of course, you can't think of trying to run your farm this season without it. It is no longer a question of whether the paper is really practical and worth its subscription price—for thousands of farmers, who are at the very forefront of our great agricultural industry take it and say they wouldn't attempt to farm without it. It is no longer a question of whether or not you can afford to read the RURAL WORLD, for thousands of farmers will tell you it costs a great deal more not to read it.

And besides all this, the RURAL WORLD, as you probably know, depends more on its subscribers and less on its advertising patronage than almost any other farm paper. We are here to help the farmer and his family; the advertisements we take we believe are only such as help the farmer—and we don't get money from any other kind. Consequently, we are obliged to rely largely upon the farmers for support.

If your subscription has expired, please take your pencil right now, write your order and mail it with your check, cash or money order—right away.

We will be looking for your renewal. It costs you only 50 cents a year, or you can take advantage of our clubbing offer and take two papers for \$1.00.

Mr. Merchant, you can get a market for your wares by using the parcel post. Get in touch with the farmers through a small ad at 1 cent a word.

RURAL WORLD WANT COLUMN.

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For each insertion.

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No ad accepted for less than 25 cents.

FARMS FOR SALE.

MISSOURI BARGAINS.

230 acres; 200 in cultivation; fertile bottoms, 80 acres upland in good timber; tract practically free from stones; 4-room house; several stock stables; stock shed for 80 head; liberal terms; price \$50 per acre.

240 acres; 160 in cultivation; 130 acres of valley land; 2 sets of improvements; near county seat; price \$45 per acre.

240 acres; 60 acres cleared; 6-room rock house; small outbuildings; near station; price \$15 per acre; liberal terms.

200 acres; 100 acres in cultivation; 40 acres in sheep pasture; 60 acres in good timber; new 8-room house; good stock and sheep barn; price \$40 per acre.

204 acres; 160 acres in cultivation; 6-room frame house, good barn and outbuildings; price \$37.50 per acre; will trade for city property.

JAS. E. HOLLOW, JR., Cuba, Mo.

FOR SALE—70-acre dairy, fruit, truck and poultry farm, 3 miles out on Jackson Pike; best road in the county. Will be sold for 1/2 cash, balance on 5 years' time, with 6 per cent interest. This is a snap, and the first man with the cash gets a bargain. Come quick and see me. Lawrence Morrison, Cape Girardeau, Mo.

FOR SALE—80-ACRE FARM—40 acres cultivated; balance timber; 3 miles to county seat; a bargain. For description, address: F. L. Anderson, Steelville, Mo.

MISSOURI STOCK FARM—Of 306 acres, situated on Current River, 60 acres upland, balance river bottom. As rich corn and clover land as can be found. Two sets of improvements. 150 acres in cultivation, bottom not in cultivation, covered with cane. Adjoining farm raised the prize acre of corn in State in 1912. Farm rents for half. Price only \$37.50 per acre. No trade. C. H. Martin, Doniphan, Mo.

SQUARE DEAL—Write or call for copy of Square Deal on the richest farm land in Missouri and find out if you can't own a tract of it that will pay you a handsome profit each year. Call on S. E. Newhouse, 419 Frisco Bldg.

ONLY 30 MILES FROM ST. LOUIS—The P. D. Gallagher homestead of 235 acres; been neglected some by renting; hence will sell for \$45 per acre; all rich bottom land; has insurance company loan \$4800, at 5 per cent, 3 years to run. It joins farm we own. Owners in Texas and must sell. S. E. Newhouse, 419 Frisco Bldg.

FOR SALE—Do you want a 360-acre stock ranch, only 60 miles northwest of St. Louis on the Wabash Railroad? All fenced, fair buildings, well watered; only partially improved at present; asking price, \$30 per acre, but submit your offer; must be disposed of this month; might accept exchange as part payment. Call or address A. S. Loomis, 909 Chestnut st., St. Louis, Mo.

RANCH FOR SALE—630 acres, patented, fenced, in Pecos National Forest; \$20 per acre; stock if desired. S. Viveash, Pecos, N. M.

80 ACRES FINE BLACK PRAIRIE LAND for sale or exchange for horse, stock or young mules; land is very fine; located in best valley in Oklahoma; must see to be appreciated. Yours for a deal, Frank L. Barney, Maysville, Ark., R. R. 1, Box 20.

FOR SALE—200-acre Alfalfa, Grain and Stock Ranch; improved; \$65 A.; 1/2 down; terms on bal. No better bargain under Gunison Tunnel. Joel Hayden, Montrose, Colo.

POULTRY.

EGGS—From prize-winning Barred Plymouth Rocks, headed by cockerel, from the noted yards of J. M. Kemp, Kenney, Ill., \$1.00 per setting. Also Poland-Chinas, either sex, ready for service, \$15.00, pedigreed. Thos. Cannedy, Roodhouse, Ill.

SINGLE COMB BROWN LEGHORN EGGS—15, \$1.00; 100, \$5.00. Satisfaction guaranteed. Mrs. George Russell, Chilhowee, Mo.

RINGLET BARRED PLYMOUTH ROCKS—Large, farm-raised. Price, \$1.25 per setting; \$5.00 for 100. Mrs. J. O. Bassett, Vienna, Mo.

BARRED PLYMOUTH EGGS FOR SALE—Heavy laying strain; \$1.50 for 15; \$2.00 for 30. R. B. Woods, Bernie, Mo.

SINGLE COMB BLACK MINORCAS—Winners of highest honors at St. Louis, Sedalia, Mo.; Springfield, Ill. Eggs, \$2.00 per 15; \$3.50 per 30. Dan Oberhellmann, Holstein, Mo.

EGGS OUR SPECIALTY—15 years' square dealing. Barred Rocks, Bronze Turkeys, Pekin Ducks, Embden Geese, Turkey toms yet. Mrs. John Steele & Son, Chillicothe, Mo.

HANLY'S FANCY PLYMOUTH BARRED ROCKS—Latham pullet—mating strain: pen 1, \$5.00 for 15; pen 2, \$2.50 for 15; pen 3, \$2.00 for 15; pen 4, ckl. mating. Thompson's Ringlets, ckl. mating, \$2.50 for 15; Buff Rocks, Poley & Harter strains; White Rocks, Bickerdike pedigreed strain, \$2.50 for both kinds, per 15. Guarantee 60 per cent fertile or duplicate at half price. Order from this ad. J. H. Hanly, Breeder, Monticello, Mo.

RURAL WORLD WANT ADS.

POULTRY.

WHITE INDIAN RUNNER DUCKS—Up-right and racy carriage; layers of the pure white eggs; \$2.00 per 11; white and fawn eggs, 10 cts. each; \$2.50 per 30. Mae Paup, Carrollton, Mo.

BUFF PLYMOUTH ROCKS—Eggs \$1.50 per 15. From large, vigorous, farm-raised stock. Ten years a breeder. J. O. Beeman, Sherman, Cherokee Co., Kans.

BARRED ROCKS exclusive for 15 years. Eggs, 16, 75c; \$4.00, 100. Well barred. Large bone. Winning stock. Sure hatch. Mrs. H. C. Luttrell, Paris, Mo.

CHERRY R. C. RHODE ISLAND REDS—Eggs from exhibition stock \$3.00 per 15; range \$1.00. Orders booked for baby chicks. Mrs. Wm. Price, Litchfield, Ill.

ANCONAS—Ideal farm chicken. Best layers, small eaters. Lays large, white eggs. My breeding birds are beauties. 15 eggs, \$1.25; 30 eggs, \$2.00. T. Z. Richey, Cannelton, Ind.

ELM BRANCH FARM—Our single comb white leghorns are bred up to heavy egg production; mammoth Pekin ducks (Rankin-Japanese strain); large and vigorous eggs, \$1.00 per setting; 100, \$5.00. S. S. Hinerman, Marshfield, Mo.

BARRED PLYMOUTH ROCKS EGGS—For sale from high-scoring birds; 1 setting, \$1; or \$4.00 per hundred eggs. Mrs. J. B. Straight, Winthrop, Ark.

BARRED ROCKS—White Orpingtons; eggs for hatching; heavy laying strain, \$2.00 for 15; mating list free. C. A. Moxley, Taylorville, Ill.

SINGLE COMBED RHODE ISLAND REDS—Free range, laying strain. Eggs for hatching \$1.00 for 15; \$2.75 for 50; \$5.00 per 100. Mrs. Herbert Pyeatt, Canehill, Ark.

BARRED PLYMOUTH ROCKS. No. 1 Farm Stock.—Price, \$1 per setting of 15. MRS. C. D. LYON, R. 1, Georgetown, Ohio

ROSE COMB WHITE LEGHORN EGGS from standard-bred yearlings. Two dollars for fifteen, prepaid. Quantity rates. Field Bros., R. 2, Cape Girardeau, Mo.

WHITE ORPINGTONS EXCLUSIVELY—Eggs that hatch strong, vigorous chicks \$3.50 to \$10.00 per 15 from Big White Heavy Laying Stock. Few Cockerels and Pullets for sale. Our stock and prices are right. A square deal guaranteed. Ozark Strain, the kind you will eventually buy. Ozark Poultry Farm, Exeter, Missouri, Lock Box 25.

KELLERSTRASS WHITE ORPINGTON EGGS, \$1 per 15; good stock. E. F. Bowles, Barnett, Ill.

INDIAN RUNNER DUCKS—American, English and White strains of prize-winning layers; mating list free. Marian Holt, Savannah, Mo.

FAWN AND WHITE INDIAN RUNNER DUCK EGGS, from free-range, two-year-old stock; \$1.25 for 12, postpaid. Miss Ida Wright, Hickory Grove, Kentucky, Route 1.

INDIAN RUNNER DUCKS—Quality finest; strong, vigorous; eggs, \$2.00 per 11; S. C. Buff Orpingtons, also first-class; eggs, \$1.50 per 13. Order now. Mrs. Mabel Feint, Cortland, N. Y.

MAMMOTH PEKIN DUCK EGGS for sale, 10 cents each, or \$1.00 sitting. Mrs. A. Brower, Rinehart, Mo.

MAMMOTH WHITE TURKEYS—Largest tom weighed 51 lbs. Eggs, \$3 per 12. Barred P. Rock eggs, \$2.50 per 15; circular free. Geo. W. Wingo & Son, R. 9—B, Mayfield, Ky.

HORSES.

FOR SALE—Two Standard and Registered Trotting Stallions, 16 hands, grandsons of Ashland Wilkes, 2:17 1-4, sire of 62 trotters and 57 pacers; extra good. Two good breeding Jacks, priced to sell. W. A. White, Sarcosie, Mo., R. R. 2.

SWINE.

POLAND CHINA PIGS—For sale at weaning time and pigs big enough for service at cut prices, for 30 days; either sex. J. B. Straight, Winthrop, Ark.

SEED CORN.

CHEAP SEED CORN—As it is getting late in the season, and we still have about 75 bushels of Johnson County White seed corn, selected when husking in November, we will make a special low price in order to sell it. Select seed, tipped and butted, \$3.75 per sack of two bushels; \$2 per single bushel; sacks free. This is the lowest price ever made on seed corn of equal quality. C. D. Lyon, R. 1, Georgetown, Ohio.

SEED CORN—Reid's Yellow Dent, good quality, \$2.00 at crib; supply limited; \$2.25 in sacks shelled; \$2.50 in crates in ear. James Z. T. Edwards, R. F. D. No. 8, Bowling Green, Mo.

PURE-BRED GOLDEN EAGLE SEED CORN—Extra deep grain, small cob, 10 days earlier than Reid's; shells 90 per cent of corn to cob; shelled sample free; sample ears mailed 20 cts. Carefully selected, hand-shelled corn, \$2.00 per bushel. J. E. Moss, Sturgeon, Mo.

LARGE EARLY WHITE DENT SEED CORN \$2.25 per bushel. Sacks free; took first prize and sweepstakes over 400 exhibitors. Eggs for hatching from prize-winning Barred Rocks, S. C. Rhode Island Reds, S. C. White, Brown and Buff Leghorns, \$2.00 for 15; \$3.50 for 30. Ed. Sterns, Route 1, Herrin, Ill.

RURAL WORLD WANT ADS.

CLOVER SEED.

PLANTS FOR SALE. Sweet Clover at reasonable prices. Order now for early spring delivery. Also, inoculating soil, for Alfalfa and Sweet Clover inoculating purpose; also seed. With Plants success is certain. Try them. Can be sent by parcel post. Mrs. J. T. Mardis & Sons, Falmouth, Ky.

SWEET CLOVER SEED—Large, biennial cultivated variety, for hay, pasture and fertilizer. Price and circular how to grow it sent free on request. Bokara Seed Co., Box D., Falmouth, Ky.

SEEDS—Alfalfa, \$6; timothy, blue grass and cane, \$2; sweet clover, \$9. Farms for sale and rent on crop payments. J. Mulhall, Soo City, Ia.

HELP WANTED.

WANTED—EXPERIENCED CHRISTIAN WOMAN to do housework in family of five; good country home, four miles from two towns, in good neighborhood. Harry L. Day, Union, Mo., R. F. D. No. 2.

MISCELLANEOUS.

FOUR-LEAF CLOVER BRINGS LUCK—Try a Clover Brand razor for thirty days; if not satisfied get your money back. Money returned to first buyer from each county, if you agree to show razor to friends. Try to be first. By mail, \$1.50 or \$2.00. F. Blake, Central Station, West Virginia.

STOCK FEAS FOR SALE—Write us for samples and prices. Reference: Booneville Banking Co. B. & S. W. McCullar, Box 192, Booneville, Miss.

LADIES, IF YOU ARE TROUBLED WITH headache and neuritis, send your name and address for a free sample package of Andoyne Powders. Knewitz Drug Co., East St. Louis, Ill.

"HEAVEN AND HELL," Swedenborg's great work; 400 pages, 15 cents, postpaid. Pastor Landenberger, Windsor Place, St. Louis, Mo.

COLLECT YOUR BAD DEBTS. You can do it. My system gets the money. My ten sets of 4 letters each that have compelled the payment of old accounts may bring you many dollars due you. Send one dollar for these forty letters. Mercantile Adjustment Company, Freeport, Illinois.

ONE HANDSOME DUSTING CAP, 1 large apron and 10 receipts, all for \$1. Mrs. J. C. Heckmon, R. 4, Dixon, Ill.

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WHO CAN BEAT IT?

Editor RURAL WORLD: I want to know who has a sow ahead of this one. Mr. John Roberts, near Gainesville, has a Duroc Jersey sow that has brought 49 pigs at three farrowings, 17, 15, 17. All these pigs were well developed pigs. This leads anything I have yet heard of. If any man has a sow that can beat it, let him come forth and state his case.

Farmers are well up with their spring work. Winter wheat and fall sown oats are looking well. Some corn is being planted. Most too early for me.

T. B. WILLIAMSON, Paragould, Ark.

TO FARMERS EQUITY UNION MEMBERS!

If you are interested in building up your union by educating those outside your ranks, send in the names of anyone you think would be interested in your aims and we will send them sample copies of COLMAN'S RURAL WORLD, the Farmers Equity Union official paper.

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